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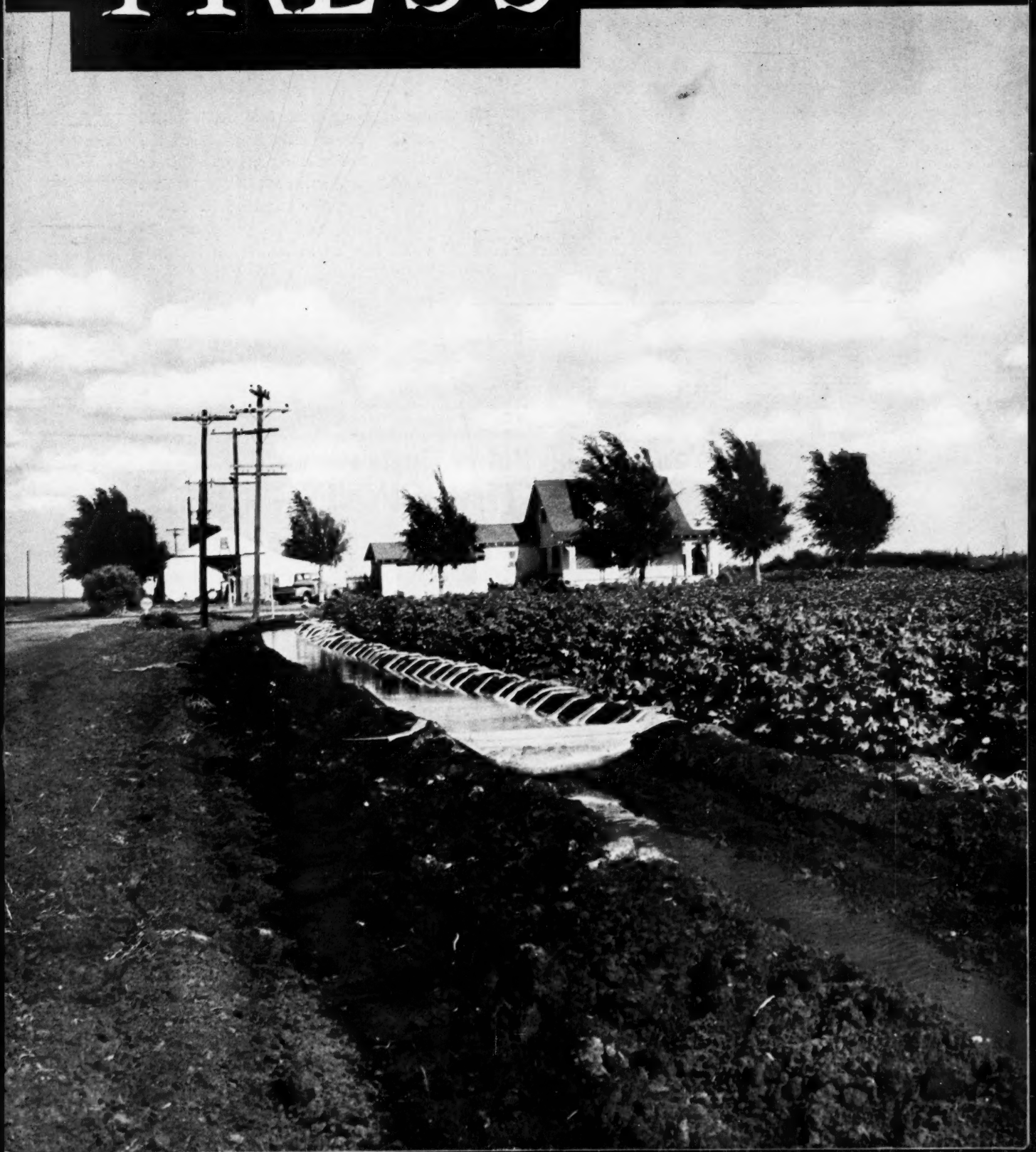

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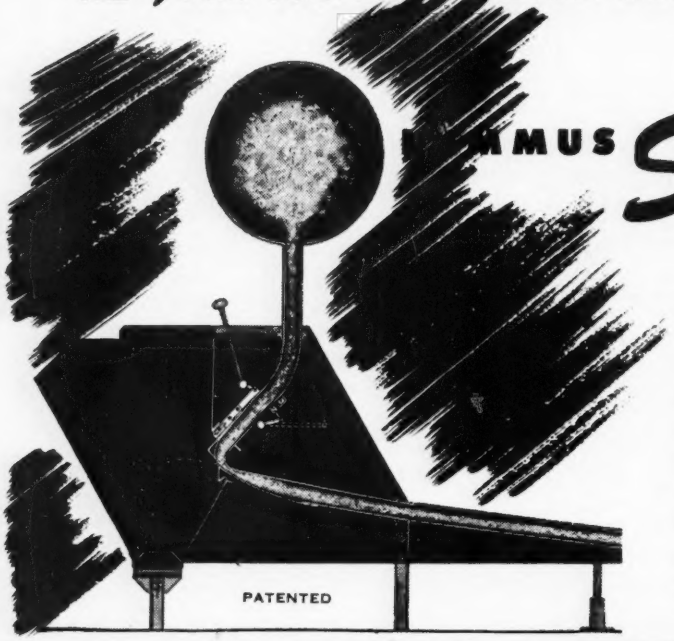

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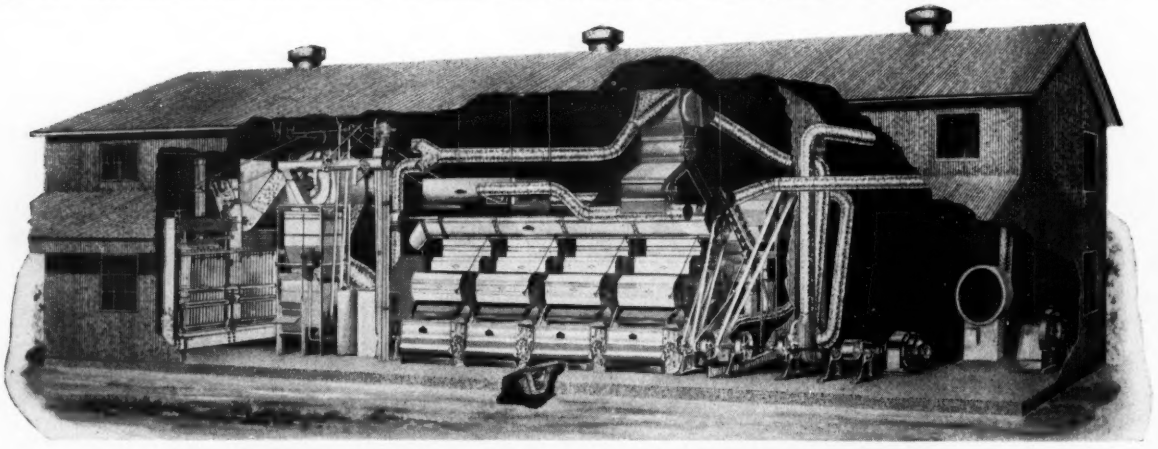

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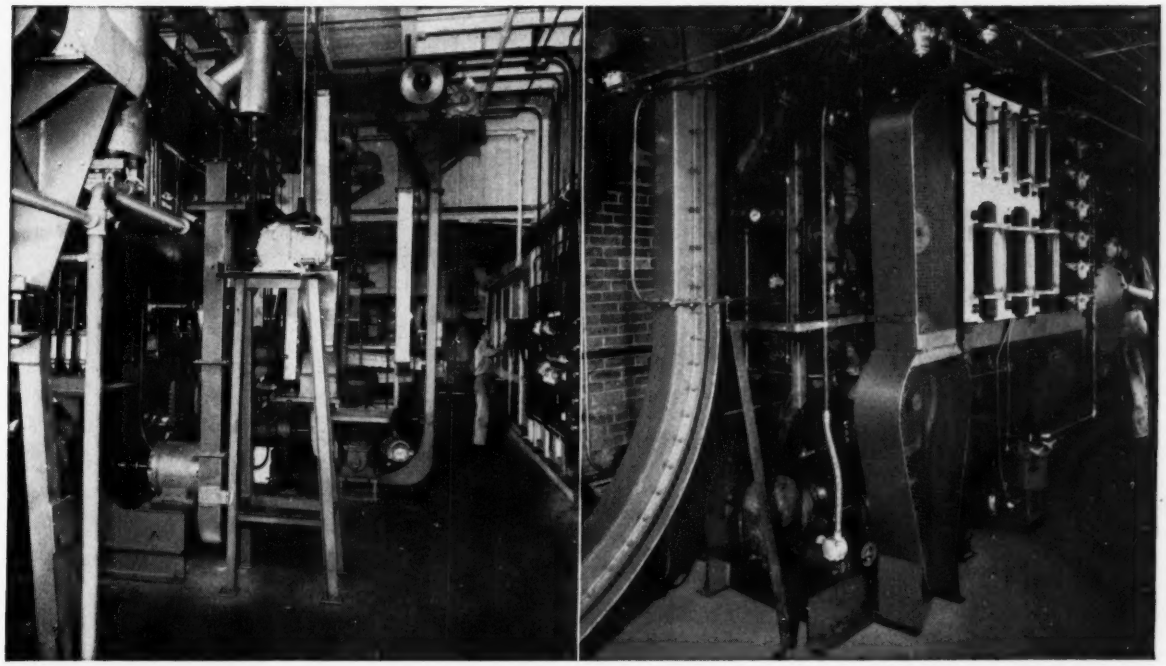

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Photograph by C. B. Spencer
Texas Cottonseed Crushers' Association

VOL. 55 OCTOBER 9, 1954 NO. 21

The Cotton Gin and Oil Mill PRESS...

READ BY COTTON GINNERS, COTTONSEED CRUSHERS AND OTHER OILSEED PROCESSORS FROM CALIFORNIA TO THE CAROLINAS

★ ★ ★

OFFICIAL MAGAZINE OF:

National Cottonseed Products Association

National Cotton Ginners' Association

Alabama Cotton Ginners' Association

Arizona Ginners' Association

Arkansas-Missouri Ginners' Association

California Cotton Ginners' Association

The Carolinas Ginners' Association

Georgia Cotton Ginners' Association

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Tennessee Cotton Ginners' Association

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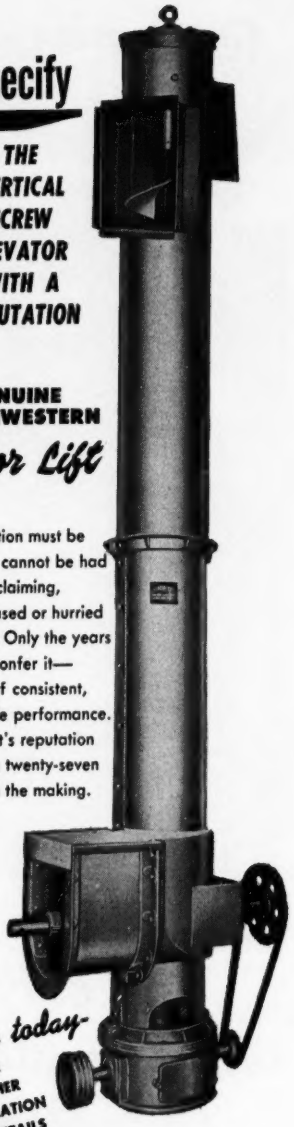

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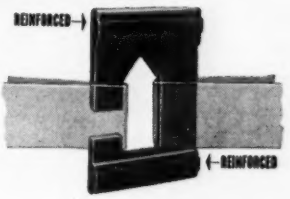

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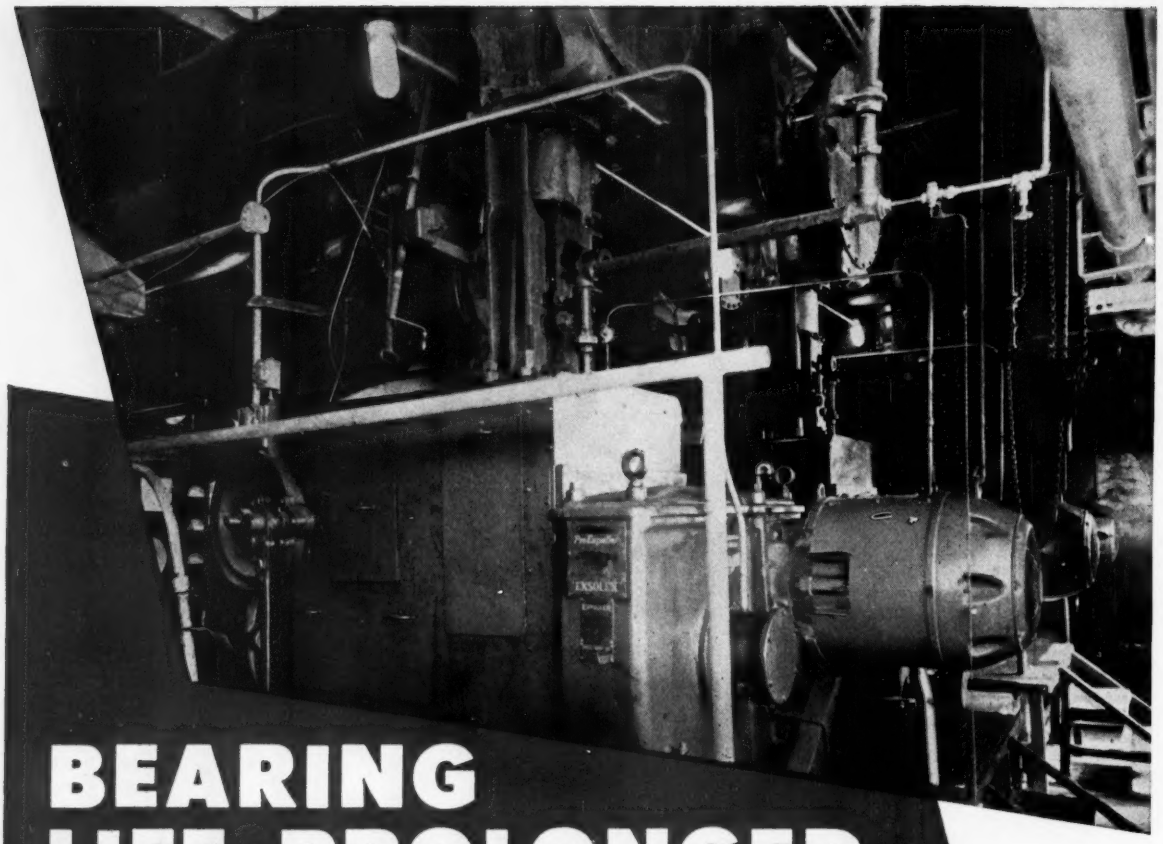

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SHOWN HERE are cottonseed crushing industry representatives and processing and nutrition research workers during a conference in California. Left to right are Garlon A. Harper, assistant director, NCPA Educational Service; A. M. Altschul, USDA Southern Regional Research Laboratory; C. R. Grau, University of California; A. L. Ward, director, NCPA Educational Service; and W. B. Coberly, Jr., California crusher and 1952-53 president of NCPA.

Since Cottonseed Meal Got One Foot In the Door of the Poultry House

Revenue From Research Important to Mills

Problems of raw material, processing and marketing that are of interest to all cottonseed crushers are studied in extensive research activities aided by industry

By WALTER B. MOORE
Assistant Editor
The Cotton Gin and Oil Mill Press

MONEY from a new source has flowed into the pockets of cottonseed crushers during the past 12 months. No one has an exact estimate as to the total figure, but it was large enough to attract attention throughout the industry.

This was "new money" because it came from a market that cottonseed crushers didn't have in the past. It was a market that research had created for cottonseed meal. These dollars were the direct payoff from research. They represented many times the sum that the cotton oil industry has invested, as individual companies or through the NCPA Educational Service nutrition research program, in aiding the processing and feeding research that made it possible for this meal to be sold.

Formula feed manufacturers paid several million dollars to crushers, brokers and dealers. For the first time in history, they bought a large volume of cottonseed meal to use in chick and broiler rations and mixtures for hogs. Doors of poultry and swine houses that always had been shut to cottonseed meal were pushed partly open as a result of research.

How, why and to what extent cottonseed meal gained a new market will be discussed later, after looking first at other phases of a broad research program that is helping cottonseed crushers—and, of course, ginners and cotton as a whole.

• **More Research Interest** — Cotton oil mill leaders have long been interested in research, but there are many evidences of an increase in this interest. One indication was the action during the past year of the directors of National Cottonseed Products Association in setting up a new research committee.

H. L. Craig, Buckeye Cotton Oil Co., Cincinnati, is chairman of the committee. Members include J. M. Johnson, Anderson, Clayton & Co., Houston; P. A. Williams, Southern Cotton Oil Co., Memphis; H. S. Mitchell, Swift & Co., Chicago; Harry S. Baker, Producers Cotton Oil Co., Fresno; James Hicky, Forrest City Cotton Oil Mill, Forrest City, Ark. A. L. Ward, Educational Director, Dallas; and H. L. Wilcke, Ralston Purina Co., St. Louis. The inclusion of a representative from the formula feed industry gives significant recognition to the interest of that industry in cottonseed's research activities.

The opportunities and challenges which will confront this committee, and the officials who will activate its programs, as well as the crushing industry as a

A NEW STRAIN of nonshattering sesame in the breeding plots at Clemson, S.C., is examined by J. A. Martin, who is a leader in the cooperative work to develop this oilseed for crushing in the U.S.

whole, are indicated by the following summary of some of the research now under way. This research may be divided, roughly, into that dealing with the production of raw material, then processing and finally increasing the usefulness of cottonseed products.

Making an Old Crop Fit New Needs

The search of cottonseed crushers for more raw material is a never-ending job. During the past eight years the research activities of the industry along these lines have been concentrated upon sesame.

By the end of 1955, it is probable that this research program will certify seed of a high-yielding, nonshattering variety of sesame with a large degree of disease resistance. This will be a real accomplishment for the research workers, good news for crushers and a welcome new crop for farmers who can grow it after the certified seed has been increased.

There's nothing new about sesame. It's one of the world's oldest oilseeds. It's rich in oil of excellent quality and the meal is a good feed. Sesame has just about everything a crusher wants in an oilseed, and is a valuable commercial crop in many countries where labor is cheap.

Sesame has never been an important oilseed crop in the U.S. in spite of the fact that it grows well from the Carolinas to California. The crop's great handicap has been that it shatters too badly for efficient machine harvesting, and our labor cost prohibit the hand harvesting which is done in other countries.

Crushers' active cooperation with sesame research began about eight years ago. Investigations by the Educational Service of the National Cottonseed Products Association pointed to sesame as the most promising of a number of possible new oilseeds for Cotton States. After aiding research workers in studying several of these crops, including sesame, NCPA concentrated its efforts on sesame.

A sesame breeding research program by J. A. Martin at Clemson College in South Carolina, where Martin had been working with the crop since 1943, became the nucleus for the broader research program now under way. As a result, U.S. Department of Agriculture became interested in the work, and Murray L. Kinman, stationed at Texas Experiment Station, College Station, is a key figure in the extensive federal-state sesame research program with which crushers are cooperating. D. G. Langham, a U.S. scientist working in Venezuela, was a pioneer in sesame research and is giving valuable help to Martin, Kinman and their associates.

This article will not discuss the sesame work in detail, as those interested in details will find them in previous issues of The Press.

The significant fact about sesame is that we appear to be coming up with a variety that is nonshattering and suitable for mechanical harvesting and commercial production in cotton areas. This has been accomplished in about eight years, instead of the 15 years that plant breeders had anticipated.

Commercial planting of this nonshattering sesame won't be possible on a farm scale until after the seed has been released to breeders and increased by them. Research workers also believe that they can improve on the best variety that they now have. But, with all of these cautions, there is good reason to believe that sesame will become an oilseed crop for the Cotton Belt. Furthermore, there are recognized authorities who are confident that sesame can be an even better crop for the U.S. than soybeans.

Here, again, is a payoff from research for cottonseed crushers which promises to rank in importance with the meal payoff mentioned at the start of this article.

While searching for new raw material, cottonseed crushers have not overlooked the importance of improving the processing of the seeds they already have available. If anything, processing developments have received more attention in recent years than any other phase of the industry's problems.

Making Oil Mills More Efficient

Processing research is not confined to the public or private laboratory. The many oil mill superintendents who've

(Continued on Page 43)

THE EFFECT of processing on the nutritive value of cottonseed meal was discussed by the scientists shown here and others during a conference last November in New Orleans. Left to right are W. A. Pons, Southern Regional Research Laboratory; Burt W. Heywang, USDA, Glendale, Ariz.; K. T. Holley, Georgia Experiment Station;; and F. H. Thurber, Southern Laboratory.

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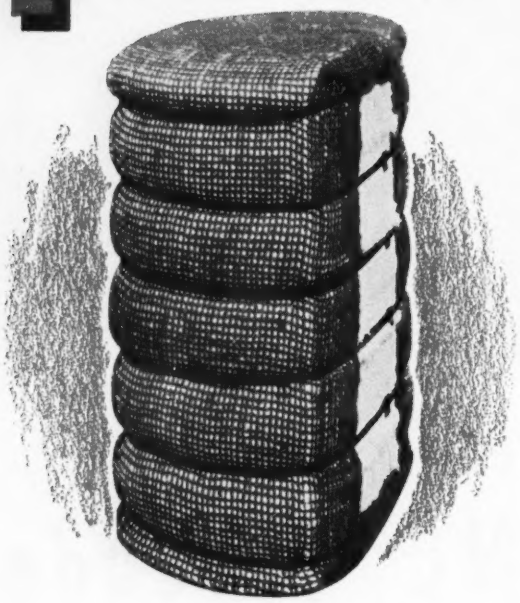

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The Effects of

DRYING COTTON At HIGH Temperatures Prior to GINNING

This report is one of a series covering work of the Cotton Research Project at the Textile Research Institute[1]

DOCTOR JOHNSON is cotton technologist with the National Cotton Council at Memphis.

By BURT JOHNSON

BOTH PRACTICAL experience and controlled experiments have repeatedly demonstrated that overdried cotton is damaged in such a way that it affects the spinning quality of the lint. There has been, nevertheless, a great deal of discussion as to the mechanism whereby this reduction in quality occurs. Is the cotton damaged from overdrying as such, or from the rate of drying? Speculation on this subject ranged along the lines that flash drying completely changed the waxes on the fiber and crystallized the cellulose structure. A contrary opinion is that a slower rate of drying at lower temperatures changed neither the waxes on the surface of the fiber nor the cellulose. It was assumed in these speculations that both methods of drying resulted in lint with equal moisture contents.

It should be emphasized that in this work no determinations were made on cotton dried according to recommendations from the USDA. All comparisons are between cotton which was not dried artificially and cotton which was deliberately mistreated as regards the heat to which it was subjected.

This experiment undertaken by the Textile Research Institute was performed on cotton that was hand picked on the same day. The cotton was randomly divided into three two-bale lots so that each lot of seed cotton was essentially the same as the other lots. Picking was on a cloudy day during which light intermittent drizzles occurred. The electrical moisture meter indicated the seed cotton contained about 10 percent moisture.

The ginning was done at the U.S. Ginning Laboratory, Stoneville, Miss. This experiment is somewhat unique in that no overhead cleaning or lint cleaning was done on any of the three lots of cotton. In this way, the effect of heating alone was considered uncomplicated by effects of machining the seed cotton or cleaning the lint. The specific route of the cotton was as follows: two drying towers, distributor and two-unit Mitchell feeder, gin stand, condenser and bale press.

The first lot of cotton, which is designated in the report as GINWET, passed through the line of machines listed above with unheated atmospheric air used to blow the seed cotton through the two drying towers.

The second lot of cotton, which is designated as GINMILD, was subjected to an intake temperature averaging 265° F. in the first drying tower, and 210° F. in the second drying tower. The so-called GINMILD condition was, therefore, somewhat beyond the recommended temperatures in double towers for drying cotton of the moisture content used in this experiment. This condition was set up deliberately to overdry the cotton. In both towers, the discharge temperatures were 175° F.

The third condition, designated as GINHOT, consisted of passing the cotton at an average of 455° F. intake temperature and 215° F. discharge temperature through the first tower and then passing the cotton through the second tower with no heat used.

Thus, there were three samples of two bales each, prepared so that the first sample passed through two towers without heat, the second sample was subjected to somewhat excessive heat in two towers, while the third sample was dried at a flash temperature in the first tower and merely passed through the second tower while it was at room temperature. The moisture content of lint was about 6 percent for the undried cotton, while both dried cottons had a lint moisture content of 3.8 percent.

The lint was then subjected to numerous fiber tests in one or more laboratories and, in addition, underwent a closely controlled spinning test in a commercial spinning mill.

Spinning Test Results

Properties of the 40/1 carded yarns spun in a commercial mill are summarized in Table I. Yarns made of cottons dried to 3.8 percent moisture content were weaker than when the cotton had not been overdried. The yarn appearance grade was only very slightly lower for the two dried cottons as compared to the control undried cotton. The relative strengths of the yarns were reflected in the strengths of the cloth made from them; cloth made from yarn which in turn had been made from excessively dried cotton was a little weaker than cloth from the undried cotton.

In commercial spinning mills, an important measurement of the spinning value of a cotton is known as "ends down per 1,000 spindle hours"; and for short merely "ends down." An "end" is each strand of cotton being twisted and wound onto the bobbin during the spinning process. When one of these "ends" breaks, it is said to be "down." The

(Continued on Page 36)

Table I. Commercial Spinning Test of 40's Yarn Made of Cotton Dried Under Three Conditions Prior to Ginning.

	GINWET	GINMILD	GINHOT
Strength of yarn skeins in pounds	57.3	52.5	54.4
Yarn strength x size of yarn*	2242	2066	2125
Yarn appearance grade	B—	B—	C+
Strength of individual yarn in pounds	0.465	0.456	0.425
Strength of cloth, grab method in pounds	62	58	60

*This factor is a precise way of comparing yarn strengths as it takes into account differences in yarn sizes.

[1]A complete report of the work covered in the accompanying article is to be published in the Textile Research Journal by Donald J. Leitgeb and Helmut Wakeham. An experiment such as the one described here requires cooperation from many sources. Collaborators in this work were Delta & Pine Land Co., Joanna Cotton Mills Co., National Cotton Council and the U.S. Cotton Ginning Laboratory at Stoneville. The Cotton Research Project is financially supported by the following: American Thread Co., Anderson, Clayton & Co., Bates Manufacturing Co., Conts & Clark, Inc., Cone Mills Corp., Dan River Mills, Deering-Milliken Research Trust, Fabric Research Laboratory, Inc., Harris Research Laboratory, Joanna Cotton Mills Co., Johnson & Johnson, Pepperell Manufacturing Co., Standard Chemical Products, Inc., J. P. Stevens & Co., Inc., West Point Manufacturing Co., U. S. Rubber Co., and U. S. Testing Co., Inc.

Meal and Pellet Article Available From NCPA

Reprints of an article stressing the value of cottonseed meal and pellets have been distributed to mills by the Educational Service of the National Cottonseed Products Association. A. B. Nelson of Oklahoma Experiment Station is author of the article which appeared in the October issue of The Farmer-Stockman.

The article discusses comparisons of 40 percent protein pelleted cottonseed meal with lower protein pellets and comments "as long as protein is the limiting nutrient, the high-protein feeds are the most economical supplements." It also contains other information that should make it useful to cotton oil mills. Reprints are available in quantity at $1 per 100, plus shipping costs, from the Educational Service, 618 Wilson Building, Dallas.

Farm Labor Use Drops

About three percent fewer man-hours of work will be needed on the nation's farms in 1954 than in 1953, according to the Agricultural Marketing Service of USDA. In 1953 about 15 billion man-hours were used, and about 14.6 billion will be needed this year.

Big reduction in labor needs for cotton, corn and wheat more than offset increased needs for hogs, cattle and other livestock. Fewer acres and lower yields of cotton, corn and wheat resulted in substantially less labor for them this year than last, USDA says.

New NCPA Bulletin Will Be Useful

Many favorable comments have been received by the Memphis office of the National Cottonseed Products Association as a result of the publication of a new edition of Cottonseed and Its Products. This is the fifth edition of the bulletin which is widely used by students, teachers, writers and others as a reference on the cottonseed crushing industry.

The latest edition has been completely revised and is attractively illustrated by numerous new photographs and a chart showing many of the uses of cottonseed products. Other features that should help to make the bulletin of much value to NCPA members in their public relations activities include brief tables giving important statistics about the industry, a bibliography, and a summary of facts about the Association.

Spinning Troubles Caused By Stencil Ink Stains

Stenciling ink used to mark cotton bales continues to cause trouble at textile mills, the National Cotton Council reports.

Inks used to identify bales at the gin often seep through the bale bagging to the lint. Later, at the mill, blue or purple spots show up in fabrics and cannot be bleached out.

Because of numerous complaints from customers, one North Carolina spinner has started specifying, in purchase contracts, that no stencil markings be placed on the bales.

The Council points out that ginners in a few scattered areas in the Cotton Belt still use marking inks to identify producers with their cotton bales. All warehouses reportedly have discontinued the use of ink except on export cotton, where additional close weave marking strips are used.

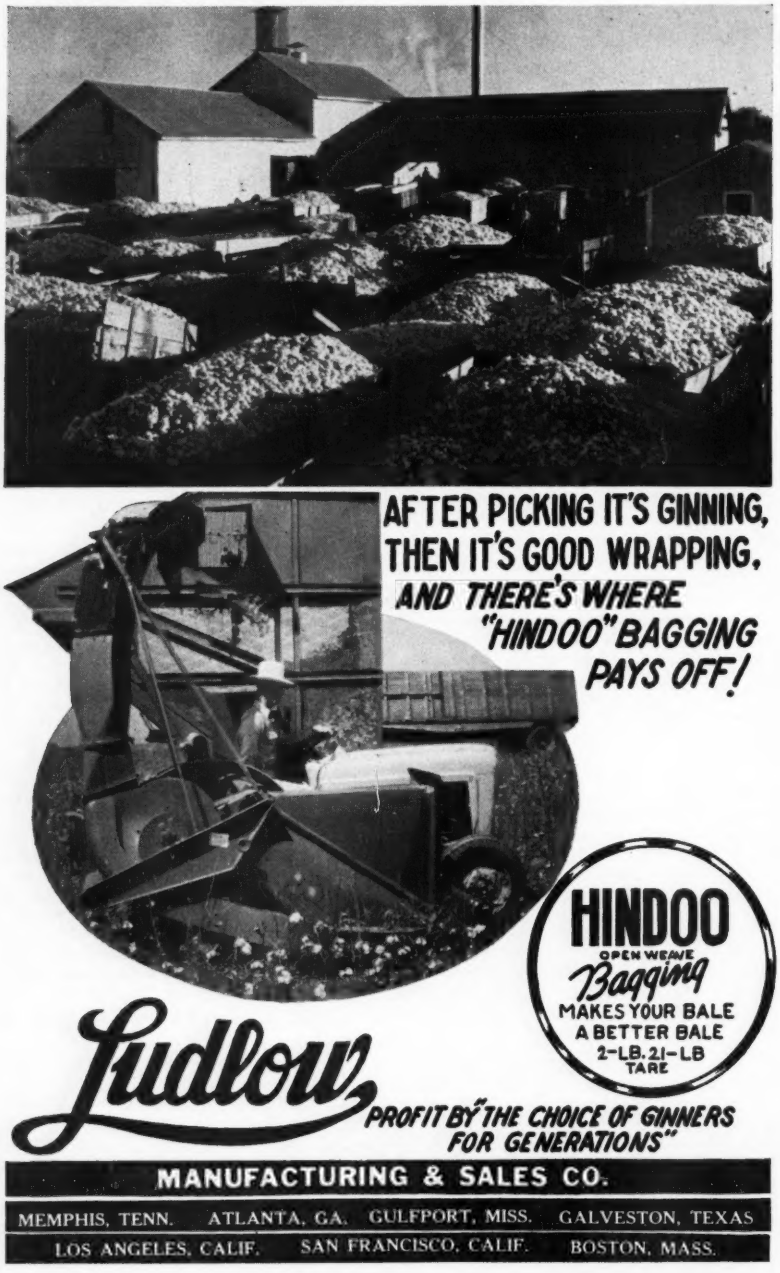
All ginners are being urged by the Council to use plain tags on which the producer's initials can be written for quick identification, thereby completely eliminating use of stencil inks.

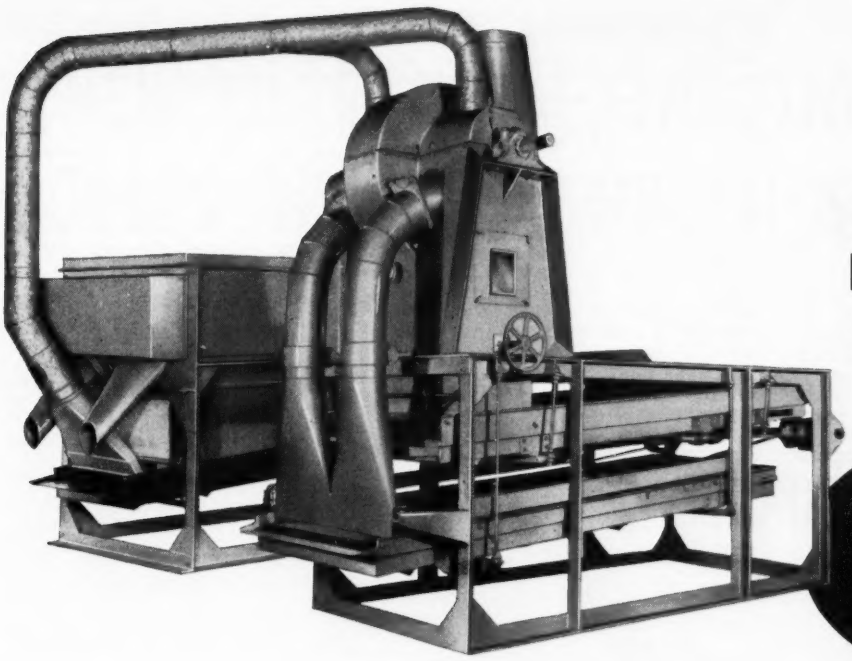
Margarine Production Sets New Record in August

Margarine production in August established a new record for that month, and a new January-August production record, according to S. F. Riepma, president of the National Association of Margarine Manufacturers.

Production figures just released indicate that 105,344,000 pounds of margarine were manufactured in August in contrast to 96,053,000 pounds produced in August of 1953. The 1949-53 average for that month was 87,672,000 pounds.

For the January-August period of this year, margarine production totalled 877,246,000 pounds. This compares with 826,302,000 pounds for the first eight months of 1953. So far this year, margarine production is running about six percent over last year, according to Riepma.





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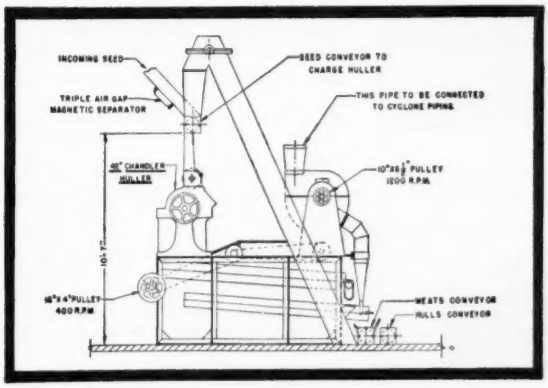
The photograph shows a No. 403 Bauer Separator-Purifier combined with a No. 408 Hull Beater for completely removing cottonseed meats from hulls. Practically any oil seed or nut decortication and separation problem can be handled by Bauer.

The drawing shows a Chandler Huller (which we handle) mounted directly upon the frame of a Bauer Separator. The incoming seed passes over a Bauer Triple-Air-Gap Magnetic Separator into the huller, thence into the separating machine where a combination of mechanical and pneumatic forces removes the hulls and dust from the meats.

These combinations of machines are examples of Bauer separating systems engineered to meet specific requirements.

Literature illustrating and describing the machines will be gladly sent upon request.

It will pay you to consult with our representatives on this subject. Our broad experience gives you the benefit of practical knowledge which we believe is not available elsewhere. Write, wire, or phone for complete information.



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After Confusion Results

USDA Changes Oil Exchange Policy

■ NCPA calls attention to situation created in oil trade by Oct. 4 announcement, and change is made by Department.

A USDA release Oct. 4, inviting the exchange of 1954 crop cottonseed oil for oil held in CCC stocks, caused considerable excitement and confusion in the oil trade. The release itself was a simple announcement of one step in the Department's efforts to move out older stocks of cottonseed oil, acquired under the cottonseed price support program, and to replace such oil with new crop oil. This policy was announced about six weeks ago in an address at Memphis by the director of the oils and peanut division, Commodity Stabilization Service.

However, the mechanics of the exchange would have permitted buyers to draw on CCC stocks now and make replacement at a later date. Actually, an exchange of about three million pounds of oil was made on this basis. Any substantial trading of this type could materially reduce the current demand for crude oil at a time when the crop must move.

Oil mills were seriously concerned and the National Cottonseed Products Association promptly called the Department's attention to the situation that had been created. On Oct. 6 USDA announced a change in policy to the effect that any further exchanges will be made only when replacement oil is supplied to CCC by simultaneous exchange of warehouse receipts on the old and new oil. On this basis, the inventory of cottonseed oil held by CCC will not be reduced at any time by reason of exchanges and any company making an exchange will not be able to use old crop CCC oil with replacement deferred to a later date.

A PHELPS UNLOADER
can handle
any air conveying job!

☆Four Sizes
With capacities up to 60 tons per hour. Electric or gasoline powered.

☆Versatility
Meets any requirement of your operation and speeds up seed handling.

☆Adaptability
FOR ANY TYPE JOB. Unloading trucks or box cars into conveyors or unloading and blowing direct to storage.

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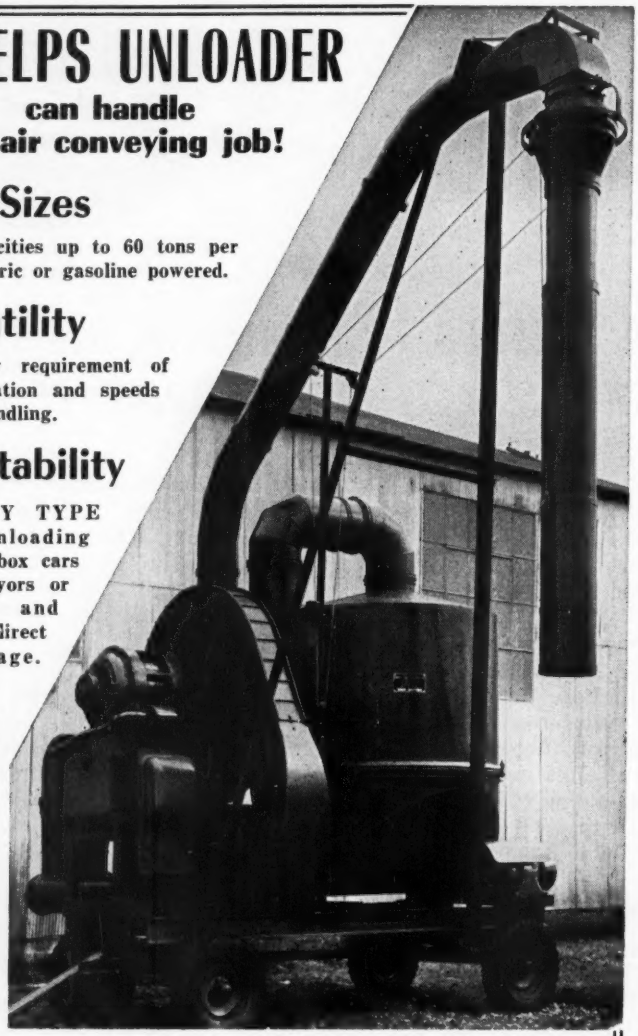

Ideal for Loading or Unloading Trucks at Gin Warehouses!

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MACHINERY COMPANY
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Legislature Fights Change In Soybean Freight Rate

The Mississippi Legislature has adopted a concurrent resolution protesting the proposed increase of export freight rates on soybeans from points in Mississippi to Gulf ports. The action followed a recent hearing on the proposed rate increase held in Atlanta by the Southern Freight Association.

The Mississippi legislators joined a number of farm organizations and agricultural leaders protesting the proposed rate hike. The legislators asked the Southern Freight Association and the railroads serving Mississippi to withdraw the "ill-advised" proposal.

The proposal made by the Southern Freight Association would raise the present export freight rate to 25 cents per hundredweight on soybeans, with an additional 12 percent added for points north of the Illinois Central line from Vicksburg to Jackson, and north of the GM & O line, Meridian via Union. The rate hike would represent a 6.2 cent per hundredweight increase for Delta points.

Cotton Firms Buy TV Sets For Hospital Patients

Eleven Tennessee members of the cotton industry have donated $1,100 to buy TV sets for tubercular patients at the Veterans' Administration Hospital at Memphis, according to the Commercial Appeal. A Tiptonville business man, who will not reveal his name, conducted a one-man campaign to get $100 each from business friends.

The following firms donated $100: Delta Cotton Co., Lake County Oil Mill, People's Gin Co., R. R. Tipton Gin Co., and West Tennessee Soya Mill, all of Tiptonville; Farmers' Gin Co., McCutchen Gin Co., Planters' Gin Co. and Ridgely Gin Co. of Ridgely; Wynnburg Cotton Co. of Wynnburg and Choctaw Gin Co. of Markham.

Imports of Fats and Oils Expanding in Germany

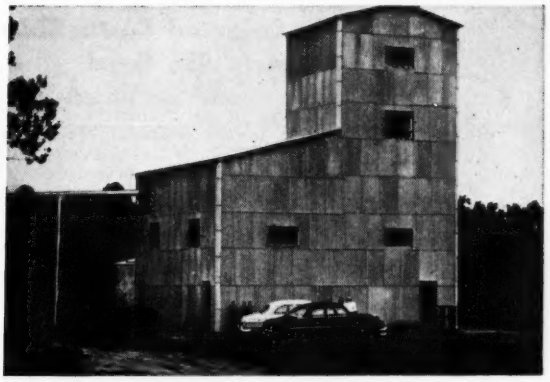
Western Germany continues to be a large and expanding market for fats and oils, USDA reports. Last year about 1.4 million tons of fats were imported, with about 21 percent coming from the U.S.

Imports from the U.S., this year as last, are restricted by two factors: the government's policy of buying from soft-currency debtors, where possible, to conserve dollars, and the policy of insisting on oilseeds rather than oil.

Practically, Germany uses American fats and oils which are either priced so low as to absorb the added costs of switch or barter transactions, or are not obtainable elsewhere.

Engineered and placed in operation by Lukenweld...

NEW FILTRATION-EXTRACTION PLANT BOOSTS OPERATING PROFIT $750 A DAY



In 30 days of continuous specification performance of its new Lukenweld filtration-extraction plant at Greenwood, Mississippi, Mississippi Cottonseed Products Company reports an increase in operating profit of more than $750 a day over previous hydraulic pressing. In the first 13,300 tons of Delta seed processed since plant start-up, profit increases are reported to have averaged over $500 a day. The plant is based on pilot plant studies of the Southern Regional Research Laboratory of the U. S. Department of Agriculture.

Improved oil and meal quality—Commercial acceptance of the Lukenweld plant by Mississippi Cottonseed Products Company is for the processing of both cottonseed and soybeans. The plant is the first to solvent-extract directly with qualities in both oil and meal which are superior to hydraulic products. As shown in the certified analyses at right, gossypol is reduced and there is less residual oil in the meal.

Simple and economical to operate—One operator and a helper per shift operate the plant. Seed preparation equipment is the same as that used in hydraulic mills, operation of which is familiar to supervisory personnel.

Within the budget of the smaller processor—For the first time, solvent extraction is brought within the means of oil mill operators crushing less than 25,000 tons a year.

The experience and design skills which produced this first successful direct filtration-extraction plant are available to you. If you are interested in increasing your profit and strengthening your competitive position, we welcome the opportunity of discussing the advantages of Lukenweld solvent extraction with you. For information, contact Process Engineering Department, Lukenweld Division, 686 Lukens Building, Coatesville, Pa.

CERTIFIED OPERATING ANALYSIS

First 13,353 tons of Delta Cottonseed
1/1/54 to 5/15/54

	AVERAGE	MAXIMUM	MINIMUM
Moisture %	8.69	10.8	7.4
Free Fatty Acid %	0.52	2.9	0.4
Oil Content %	18.85	19.7	17.7
Oil Content #/T	369	386	347
COTTONSEED MEAL			
Moisture %	9.69	12.95	8.86
Residual Oil %	1.47*	3.12	0.58
Gossypol %	0.05	0.08	0.04
Protein Sol. %	57.52	62.04	55.82
*Average since 5/4/54	0.86		
COTTONSEED OIL			
Free Fatty Acid %	0.87	1.0	0.8
Refining Loss %	5.2	6.9	4.4
Red Color	5.0	5.8	4.7
Bleach Color	1.56	1.8	1.5
Gossypol %	0.053	0.08	0.04
31 TANK CARS SHIPPED			
Free Fatty Acid %	0.86	0.9	0.7
Refining Loss %	5.5	7.6	4.5
Red Color	5.2	5.7	4.7
Bleach Color	1.56	1.7	1.5
Closed Cup Flash +300°			
Moisture & Volatile 0.14			

UTILITIES FOR PREPARATION & EXTRACTION

Steam—4400 #/hr	700 #/T
Water—244 gpm.	2300 gal/T 71° F.
Electricity—136 Kw	21.6 Kw/T
Solvent Loss—0.62%	1.45 gal/T

LUKENWELD

DIVISION OF LUKENS STEEL COMPANY

LUKENS

Maid of Cotton To Make Visit To Northwest

The U.S. itinerary of the 1955 Maid of Cotton includes major cities in all sections and will take her to the Pacific Northwest for the first visit by a Cotton Maid to that region.

The National Cotton Council has announced that the Maid is scheduled to make appearances at New York, Miami, Columbus, Ga., Birmingham, New Orleans, Dallas, Houston, San Antonio, El Paso, Phoenix, Los Angeles, San Francisco, Spokane, Seattle, the San Joaquin Valley of California, Des Moines, St. Louis, Chicago, Philadelphia, Wilmington, Del., Boston, Washington, Charlotte, Detroit, Memphis, Nashville, Dayton, and Cleveland, Ohio.

Several other cities probably will be added before the beginning of the tour. The European and Canadian itinerary will be announced later.

The Maid will appear in all-cotton fashion shows and will meet city and civic leaders at each tour stop in her role of fashion and good will courier for cotton.

Immediately after the selection of the 1955 Maid of Cotton Jan. 4, the young cotton emissary will fly to New York for a month's preparatory training and fittings of her glamorous cotton wardrobe. From New York she will go to Miami Feb. 2 for the official opening of the tour.

Good Ginning
DESERVES
Fine Bagging
demand...
"Pride of India"
MANUFACTURED IN INDIA
JUTE BAGGING
GUARANTEED NEW 2 LB.
21 LB. TARE, ASSURING
BAGGING STRENGTH AND
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• Mechanization Data Mailed by Council

THE NATIONAL Cotton Council has distributed copies of a summary of proceedings at the Eighth Annual Cotton Mechanization Conference held at Little Rock July 28-29-30. The summary was reprinted from the Aug. 14 issue of The Press. The July meeting featured pre-harvest practices. Next year's meeting will be held Sept. 7-8-9 at Texas A. & M. College.

Only Irrigated Castor Bean Prospects Are Good

Castor beans under irrigation from the Texas High Plains to California continue in good condition, reports Baker Castor Oil Co., but very severe drouth has hurt non-irrigated beans. Crop condition is very poor and in many areas the poorest on record.

Harvesting is getting under way in California, Arizona and Texas High Plains.

John Moloney Speaks

The Cottonseed Price Support Program was the subject of an address made Oct. 4 before the Memphis Agricultural Club by John F. Moloney, assistant to the executive vice-president of the National Cottonseed Products Association.

W. R. Flippin, western division manager of Buckeye Cotton Oil Co., is president of the club this year.

Delta Host To Many Cotton Groups

The Mississippi Delta is a center of cotton meetings this month, with several events scheduled for the first half of October.

The Spinner-Breeder Conference is being held in Greenville and Stoneville Oct. 11-12-13 with Potentials for Greater Efficiencies in the Cotton Industry the theme. Details of this event will be carried in the Oct. 23 issue of The Press.

During this conference in Greenville members of the executive committee and president's advisory committee of the National Cotton Ginners' Association will meet to discuss Association policies for the coming year.

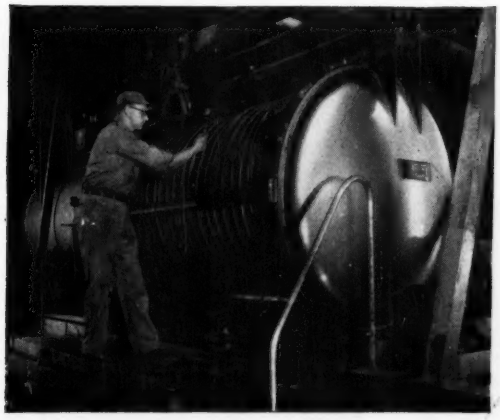
Also held in conjunction with the Spinner - Breeder Conference will be a meeting of the cotton quality committee of the National Cotton Council on Oct. 13.

And on Oct. 13-14 following the Spinner-Breeder Conference, meetings of the Cotton Improvement Conference, sponsored by USDA, are scheduled.

The Cotton Textile Merchants' and Converters' Tour got under way Oct. 5 and continued through Oct. 8. A group of top textile executives from New York made this tour of cotton-producing country. Among other stops, the group visited the John W. Nance, Jr., farm and the Hopson Planting Co. at Clarksdale.

How much oil DO YOU THROW AWAY in your filter cake?

The answer may surprise you. And whatever it amounts to . . . it's dollars right out of your pocket. *For you can easily recover from 20% to 50% of this otherwise wasted oil.* Production records prove it in dozens of plants where Niagara Style "H" Horizontal Filters are used. In one plant, 15,000 lbs. of oil, formerly lost in bleaching, is recovered monthly. Other records show comparable savings.



Niagaras will show you other important savings, too. Niagaras take as little as one half the time usually required for air blowing and steaming. And even the largest units can be taken off stream, drained, opened, cleaned, closed, filled and precoated . . . by one man . . . in a matter of minutes, not hours.

Furthermore, Niagara filtration is performed at two to five times the rates of older type filters. And, since the stainless steel leaves are not affected by steaming, you can steam safely at much higher temperatures than with filter cloth.

That's why we suggest it's time to see how much your overage filter presses are costing you . . . time to check up on the many advantages of Niagara Style "H" Horizontal Filters. Want facts? Just clip and mail the coupon . . . no obligation.

NIAGARA ADVISORY SERVICE

Niagara engineers are practical filtration specialists. They'll study your filtration problems . . . test your samples . . . pilot the filtration . . . and design and build the equipment to meet your most exacting requirements.

Niagara Filters Division, American Machine and Metals, Inc.
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Yes . . . we'd like to know more about Niagara Pressure Leaf Filters for _____ (product or operation)

☐ Have representative call ☐ Send Catalog NC1-53

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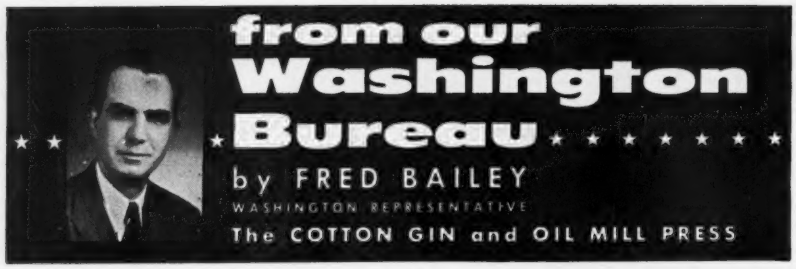


• **Acreage Allotment**—About the time you read this Agriculture Secretary Benson will be announcing cotton allotments next year of 17½ million to 18 million acres, nationally. Department cotton men figure this will mean a cutback of 10 percent below this year's acreage for the average grower.

This calculation, if correct, would reduce grower output a total of 25 percent below 1953—putting many farmers in a tough income position next year, despite USDA's recent decision to ease acreage controls.

It is "iffy" to speculate this far ahead, but some cotton authorities here are already forseeing an end to controls in 1956. Big reason for optimism is the export outlook. With foreign sales in the past season 23 percent greater than the previous year, there is now much confidence that the increase in the current season can be almost as much. Talk of a five-million-bale export figure is not uncommon here.

• **End of Income Drop Seen**—The three-year decline in farm income is due to be halted in 1954, USDA economists think —even though this may not be of much comfort in certain sections of the country where "one-crop" cotton and wheat growers probably won't find returns levelling out. Over-all, farm income in '55 is expected to be little less than this year's estimated figure of $12.5 billion.

That is about what is expected to be the conclusion reached at USDA's annual Outlook Conference in Washington, Oct. 25-30. Farm economists from across the nation will meet here that week to feel the agricultural pulse. Reasons USDA economists think the months ahead will be a period of agricultural "stability" include these:

(1) Prospects are that the economy as a whole will remain strong, with consumer income and demand continuing at high levels. Few economists today hold to the theory that recession or depression is "farm led" and "farm fed." This may be a good political slogan, they say, but it is not sound economic theory.

(2) Crop controls won't be as strict as had been planned.

(3) The improvement in export markets, particularly for cotton, is encouraging. Further gains are predicted under the new trade act which permits foreign customers to pay for U.S. goods in their own currencies—with the government converting the foreign money to dollars for sellers in this country.

• **Support Cuts Considered**—There is nothing final about it, but USDA officials are now considering a sharp reduction next year in price support for cottonseed, soybeans, and flaxseed—as well as for the "non-basic" feed grains, such as grain sorghums, and oats. It is even possible that supports for some of these commodities will be eliminated entirely.

Benson & Co. would like to cut the supports, if not knock them out entirely —but there is an obvious political problem. Any move now toward announcing lower supports would be met with loud outcries from GOP candidates running in farm areas.

Result is that Washington insiders think an announcement, if any, will be delayed until after the election.

• **Milk Men Excerpt Blake Talk**—Milk producer interests are quoting from a recent speech by Wm. Rhea Blake, executive vice-president of the National Cotton Council. Here are the words picked up by the National Milk Producers Federation from Blake:

"Let me remind you that Commodity Credit Corporation today holds enough cottonseed oil to make more than a billion pounds of margarine. The present excitement about butter involves less than half that quantity . . .

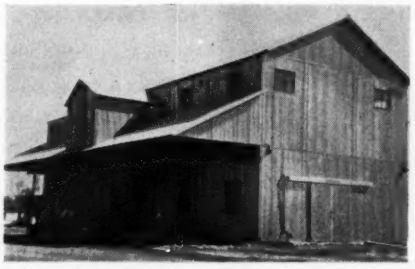
"Even if the large accumulation hap-

(Continued on Page 42)

Another Prominent Georgia Ginner says:

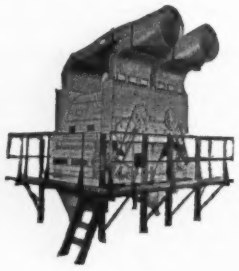
"My Single Unit Moss Lint Cleaner has been very satisfactory and the capacity has been ample for our new 3/90 plant.

"The first season one farmer brought us a load of cotton 65 miles, passing several gins. He is now bringing us all of his cotton in five bale loads and is also bringing his friends to our gin."



Payne's Gin—Butler, Ga.

W. S. PAYNE



Moss Lint Cleaner

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• Directors of NCPA To Meet Oct. 27

THE BOARD of directors of the National Cottonseed Products Association will meet at the Roosevelt Hotel, New Orleans, on Wednesday, Oct. 27. This will be the regular fall meeting of the board.

The directors' meeting will be preceded by a meeting of the Association's research committee Oct. 25-26. This committee was established at the time of the last annual convention and combines the functions previously distributed among three committees. It is expected that the research committee will review the current research program.

The public relations committee will meet Oct. 26. This committee will review the current Association program of informing the public of industry problems and is expected to present recommendations to the board.

In addition to the foregoing committee reports, the directors will consider other matters of concern to the industry and the general operation of the Association.

George Hall Will Speak At Farmers' Meeting

George Hall, El Paso, district manager, Western Cottonoil Co., will talk on the subject Is Cotton Still King? at the annual Farm Day at New Mexico A. & M. College, State College, Oct. 12. The program will spotlight research, and Hall will be one of two guest speakers.

John R. Eyer, entomologist with New Mexico Experiment Station, will tell Farm Day visitors what is known about the yellow clover aphid. This is the aphid which caused millions of dollars worth of damage to the alfalfa crops of New Mexico, Arizona, California, Colorado, and Nevada this year.

R. A. Nichols, dean of the school of agriculture and home economics, and director of the Experiment Station will deliver the welcome address following the noonday barbecue.

During the morning tour of experimental plots at the agronomy farm, visitors will see and hear about research on Pima S1, varieties of upland cotton, control of Verticillium wilt, chemical control of annual grasses, new alfalfa varieties, new plants that may have possibilities as cultivated crops, breeding upland cotton for New Mexico, soil and plant fertilizers, improved varieties of chili and tomatoes, and control of curly top of tomatoes.

Researchers will be on hand at each of the plots to explain the experimental work.

The afternoon program will feature a demonstration on seedbed preparation, and an exhibit of related equipment by local implement dealers.

Claude Gregory, Arkansas Ginning Leader, Dies

Friends in the ginning and allied industries have been saddened by the death on Sept. 20 of Claude Gregory, owner of the Cash Gin. He was also a banker and church leader in his home community of Jonesboro, Ark.; was a director of the Arkansas-Missouri Cotton Ginners' Association and served the Association last year as chairman of the merchandising committee.

Bigger cotton yields with ARAMITE®

Bales of extra dollars for you!

This season, include Aramite, *today's safest strongest mite-killer,* in your insect control program and count on a bigger, better cotton crop. Your profits will be greater and your reapplication costs fewer because Aramite keeps its mighty mite-destroying powers longer on your cotton plants.

Field-proven Aramite gives excellent knockout of the deadly Red Spider Mite as well as outstanding control of every mite type that preys on cotton. It is easy to apply, *mixes well with sulphur* and is *not dangerous* to humans, animals, bees, mite-killing insects, adjacent crops.

Order Aramite or formulations containing Aramite from your local supplier today and watch your profits grow.

Naugatuck Chemical

Division of United States Rubber Company

ELM STREET, NAUGATUCK, CONNECTICUT

producers of seed protectants, fungicides, miticides, insecticides, growth retardants, herbicides: Spergon, Phygon, Aramite, Synklor, MH, Alanap.

• Feed Manufacturers Using More Fats

THE INCREASED use of animal fats in feeds during the past two years has been one of the most significant developments in the feed industry, H. R. Kraybill, American Meat Institute Foundation, University of Chicago, says.

In 1952, he said in an address at the recent University of Kentucky nutrition conference, only about 10 million pounds of animal fats (tallow and grease) were used in feed. At the close of 1953, animal fats were being used at an annual rate of about 200 million pounds. At present, the estimated annual rate is close to 250 million pounds.

The speaker pointed out that most of these fats formerly were used in soap manufacture, but that synthetic detergents have displaced a large volume of fats in this market. At the same time, there has been a large increase in the output of tallow and grease.

This resulted in an increasingly large surplus, as shown in the following table; and depressed the domestic price even though it was possible to dispose of the surplus in foreign markets at lowered prices.

Tallow and Grease

Year	Production (Million Pounds)	Consumption (Million Pounds)	Surplus
1943	1649	1759	—
1944	1943	1923	20
1945	1751	1839	88
1946	1658	1679	—
1947	2023	1882	141
1948	1940	1782	158
1949	2132	1666	466
1950	2272	1807	465
1951	2252	1660	592
1952	2318	1541	777
1953	2560	1839	721

Among major reasons for adding stabilized fats to feeds are increased palatability; decreased waste of feed; increased comfort of workers in the feed mixing plant; improved appearance of feed; decreased wear on mixing and pelleting machinery; improved handling and shipping; increased feed efficiency; greater stability of vitamin A; and the favorable price of fats compared with other energy feeds.

Kraybill cited a recent study indicating that by 1957 there will be an annual surplus of 1.1 billion pounds of tallow and grease and that this level of surplus will be maintained for several years unless new uses are found.

He cited palatability and stability as the major considerations in determining the acceptability of different grades of tallows and greases in feeds; and discussed factors involved in palatability and stability.

The speaker then reviewed experimental work in feeding rations containing fats, including tests in which cottonseed oil, soybean oil and other fats and oils were used.

"HAMMOND"
Nu-Hy
GRAIN BUCKET
and Salem
Buckets
"HAMMOND" PRODUCTS ARE AVAILABLE THROUGH YOUR FAVORITE DEALER
We Manufacture a Complete Line of SCREW CONVEYORS Including all ACCESSORIES!
Our new southern plant is now in production on both "NU-HY" and "SALEM" BUCKETS. We can make immediate shipment on all standard sizes.
This gives you an excellent opportunity to stock up on either "NU-HY'S" or "SALEM'S" and have replacements on hand at all times.
Standard Buckets with Standard Punching from Stock at Hammond, Indiana, or Winona, Mississippi.
Special Buckets and Standard Buckets with Special Punching from Winona, Mississippi.
Screw Conveyor Corporation
HAMMOND
ENGINEERS
MANUFACTURERS
PRODUCTS

Corn Supports Announced

Corn support rates at 90 percent of parity have been announced by USDA. This means that 1954-crop corn produced in commercial areas will be supported at a minimum of $1.62 per bushel. In non-commercial producing areas, support will be at 75 percent of parity.

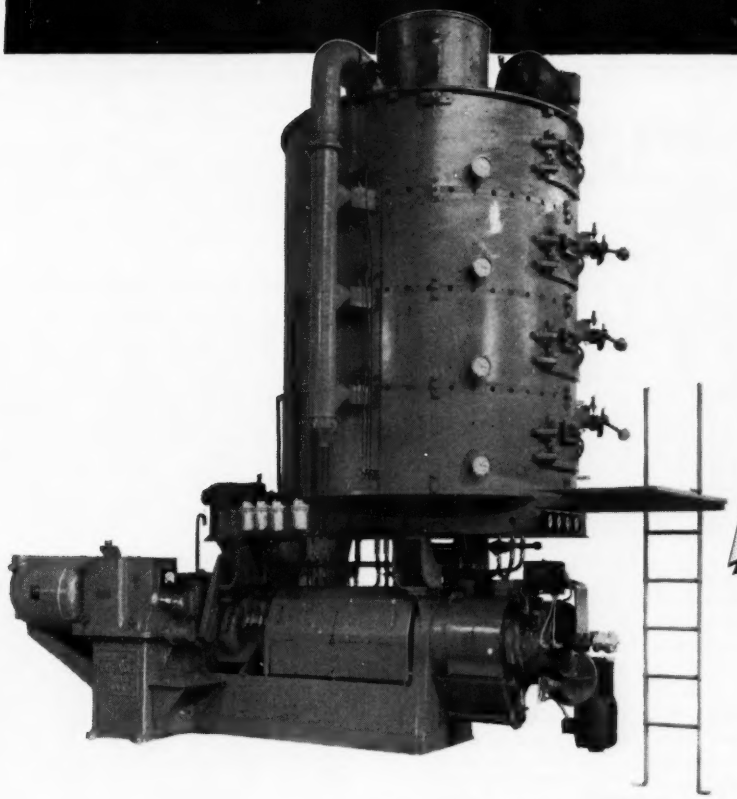
There are 834 counties in 22 states which are in the commercial corn producing area.

A. R. Marquis Retires

A. R. MARQUIS of Dallas, who started work with Swift & Co. as a messenger boy 48 years ago at Saint Joseph, Mo., and has worked for Swift continuously for 45 years, retired on Sept. 30. Marquis served the firm in executive positions at a number of different points and has been in Dallas for 26 years. As manager of the Southwest vegetable oil buying division of the firm, he made many friends throughout the vegetable oil industry and they will join the staff of The Cotton Gin and Oil Mill Press in extending best wishes to him on his retirement.

NEW EXCLUSIVE

FEATURES OF FRENCH SCREW PRESSES PRODUCE SENSATIONAL RESULTS



AVERAGE OF CAKE ANALYSES

MOISTURE	8.00%
RESIDUAL OIL	3.08%
PROTEIN	42.8%
AMMONIA	8.35%
STANDARD	.37
FREE GOSSYPOL	.023%
SOLUBLE PROTEIN (0.02N NaOH)	56.47%

OIL ANALYSIS

FFA	0.9%
REFINING LOSS	5.1%
REFINED COLOR	5.7R

These are the average results obtained by a mill for its first season operating this type machine. Many mills are now reducing residual oil in cake to 2.75% or lower with six section screw presses without sacrificing capacity.

MANY NEW FEATURES

- 6 Section, completely watercooled, high pressure drainage cage for 50% longer drainage time resulting in higher oil yield and higher quality products than ever before obtained.
- Self contained adjustable motor mount to change press speed in just a few minutes without removing the motor from the press.
- "Easy-view" cake discharge provides unobstructed view of cake being formed and discharged from the front of the press. No dangerous cake breakers are required.
- Available with all new 100 H.P. motor for high capacity at high efficiency.
- Extension cages may be added to older model presses at moderate cost to obtain up-to-date extraction efficiencies.
- Overall length of press remains unchanged for maximum flexibility of installation.

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• MECHANICAL SCREW PRESSES • COOKER-DRYERS
• SOLVENT EXTRACTION PLANTS
• FLAKING AND CRUSHING ROLLS

Cyanoethylation Report Presented at Meeting

The Chemical Finishing Conference was held at the Statler Hotel, Washington, Oct. 7-8, under the auspices of the National Cotton Council.

This was the third such meeting, and new processes which join the cotton and chemical industries were discussed. Dr. Jack Compton of the Institute of Textile Technology, Charlottesville, Va., discussed recent developments in work with Cyanoethylation of cotton yarn. Others scheduled to take part in this discussion were J. W. Weaver, Southern Regional Research Laboratory, New Orleans, and Fred Fordemwalt, American Cyanamid Co., Bound Brook, N.J.

At last year's conference Doctor Compton reported that this process increased cotton's resistance to wet and dry heat and to rotting caused by microbes. Resistance to abrasive wear and better dyeing characteristics were also attributed to Cyanoethylation. Pilot plant work has been carried out during the past year at Standard-Coosa Thatcher Co., Chattanooga, Tenn.

Cotton Field Day Held

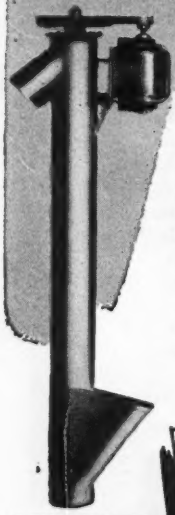
A Cotton Variety Field Day was held Sept. 29 at the Floyd Nelson ranch near Chowchilla, Calif. Discussions were scheduled by Audy Bell, Wasco, agronomist for the California Cotton Planting Seed Distributors, and by Marvin Hoover, Extension cotton specialist, U.S. Cotton Experiment Station, Shafter.

Want a Nice Year 'Round Profit...?

Install KELLY DUPLEX feed mill equipment

VERTICAL FEED MIXER
Available in 6 sizes ½ to 5 ton capacity— to meet any need.

With grain becoming increasingly more important in the agricultural economy of the South, forward-looking cotton ginners have already adapted their operations to include Kelly Duplex grain handling and processing equipment. They've found that this equipment, designed and built for top efficiency, low maintenance and long life, is able to give them steady, year 'round business and employment ...greatly increased volume... and, above all, a GOOD profit. It can do the same for you!



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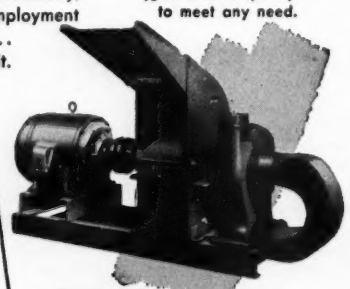

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with direct connected motor

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Yes, I'm interested in planning a feed mill program. Without obligation, please send me full details on the machines checked.

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- ☐ Complete Line Catalog

Increasing Textile Use Is Industry's Goal

Pushing per capita consumption of textiles from the current 40-pound annual average to 50 pounds is an aim of the American textile industry.

Textile production facilities at present are more than adequate to meet demand at the current 40-pound per capita level.

Leaders feel that the industry's attention should shift from production to creation of new consumer demands for merchandise. Styling, good merchandising and sales effort to create consumer demand for more textiles should be stressed, says James E. Robison, president of Indian Head Mills.

Following the war there was heavy demand for textiles, companies rushed into production, and some kept up the pace after consumer demand drifted away from restocking soft goods necessities to other merchandise.

Many firms are now forming mergers to cut costs, and they are turning more and more to styling and advertising to get consumers to spend more on cloth products.

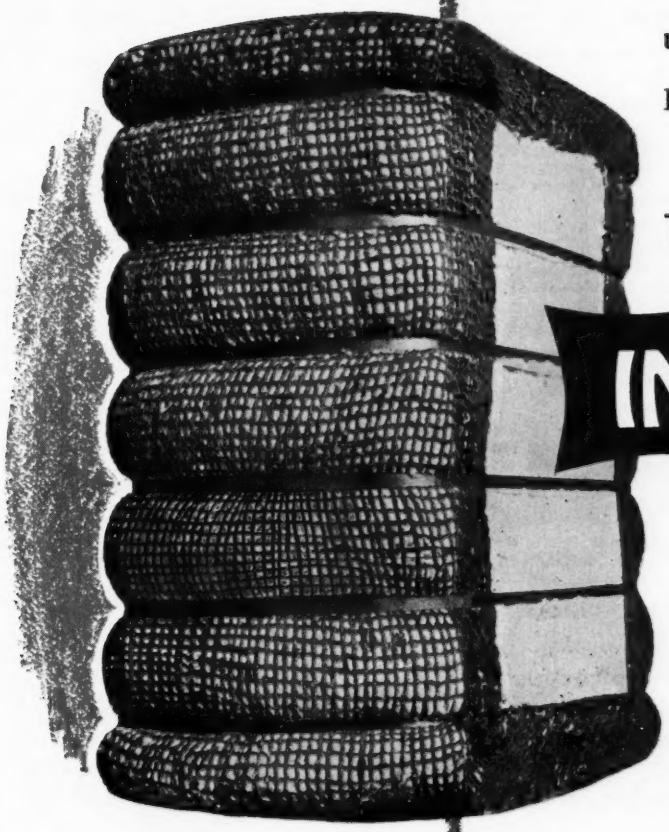
Peanut Stocks Decrease

Peanuts in off-farm positions at the beginning of September totaled 220 million pounds of equivalent farmers' stock (uncleaned, unshelled), USDA reports.

Millings of peanut stocks during the season ended Aug. 31 totaled 1.5 billion pounds, an increase of 31 percent over the volume in the previous season. Domestic disappearance of shelled peanuts, including crushings, was about 10 percent higher than a year earlier.

Wright Joins Atlanta Firm

THE APPOINTMENT of Albert C. Wright, Jr., Decatur, Ill., as head of the feed division of Ashcraft-Wilkinson Co., Atlanta, distributors of feed ingredients, fertilizer materials and agricultural chemicals, has been announced by George W. McCarty, chairman of the board. A native of Moweaqua, Ill., Wright attended Millikin University at Decatur. As an employee of A. E. Staley Manufacturing Co. since 1947, he has in recent years been southeastern sales manager of their feed division.



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For Best Results

Special Care Urged In Drying Cotton

■ MIXTURES of hand and machine harvested cotton are problem at most gins. USDA recommendations will help.

With mechanical harvesting being employed more widely than ever across the Belt, ginners are being reminded by the National Cotton Council to use extreme care in regulating drying equipment in processing seed cotton.

Machine-picked cotton usually has considerably more moisture and trash than hand-picked cotton, the Council points out. This means that cotton—some harvested by hand, some by machine—will arrive at the gin with wide extremes in moisture and trash content.

This presents a problem as clean, dry cottons require drying treatment different from damp, trashy cottons. It is impractical for a ginner to adjust his drying procedures from one bale to another. Consequently, some cotton may be over-dried, some under-dried. (See article on drying cotton at high temperatures by Burt Johnson starting on Page 11 of this issue.)

A cotton quality study group, made up of producers, ginners, spinners, machinery manufacturers, Extension Service specialists and others, recommended earlier this year that producers and ginners cooperate in grouping and ginning cottons of similar trash and moisture content together.

The Council is encouraging such action and also is reminding ginners that the following USDA recommendations will eliminate damage to fiber from improper drying:

1. Use only enough drying to insure effective cleaning.
   (a) Tests show that more effective seed cotton cleaning on roughly harvested cotton can be accomplished when lint contains about 5 percent moisture. However, weight losses will frequently result in net monetary losses to the producer when cotton is dried to 5 percent in rain grown regions.
   (b) Operators must rely on sense of touch in determining amount of drying needed to produce lint containing at least 5 percent moisture. Over-dried lint feels harsh and brittle; properly dried lint feels silky and smooth.

2. High grade cottons, which contain little trash, should be dried only enough to obtain smooth ginning. Smooth ginning results from drying cotton to not lower than 7 percent lint moisture content.

3. A single stage of drying (only one tower of 24 shelves or equivalent) can be safely conducted at temperatures about 250° F. at the dryer inlet on damp or heavy cottons without danger of fiber damage.
   (a) Trashy, wet or damp cottons require more drying for effective cleaning than do clean, hand-picked cottons.
   (b) Clean, dry seed cottons may be passed through the dryer without heat.

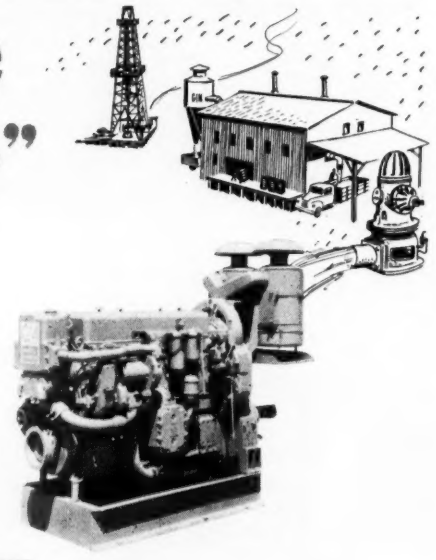
4. Two- or three-stage drying can be employed with good results if temperatures are adjusted downward to produce lint containing at least 5 percent moisture.
   (a) Two-stage driers should be operated with temperatures not to exceed 220° F. in the first stage and not over 180° F. in the second.
   (b) Three-stage drying temperatures should be further reduced to suit the cotton but to produce the same results.

5. Driers will cause a heat build-up in cleaners and extractors after a period of time, and temperature reductions are necessary to produce the same drying results as in the beginning.

Saves Them Money, If Not Labor

This cotton planting story comes from Texas, relayed by Jim Eleazer, South Carolina Extension information specialist. A county agent was talking about his cotton farmers who always insisted on planting too early. He said they had worked out a plan to save these fellows some money. They just don't put any seed in the planter the first time that they plant.

"Experience is the greatest teacher"



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THE NEW BREEDER'S REGISTERED DELFOS 9169 FOR '55

THE NEW BREEDER'S REGISTERED Stoneville 3202 FOR '55

Leadership is Developed through

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The "Golden Guernsey" is one outstanding example of "creating a Standard of Excellence" through more than 1000 years of breeding in Cattle . . .

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As the world-renowned home of Cotton Breeding, Stoneville is today the most famous name in cotton. The new Delfos 9169 and the new Stoneville 3202 are two of the nation's leading strains that create a new Standard of Excellence in Cotton.

The breeding of Stoneville Cotton is based on the same scientific principles as cattle breeding. Year-after-year new characteristics are developed, undesirable qualities eliminated. Through intensive research and careful breeding, Stoneville Cottons today bring you the results of more than 35 years of developing the finest strains. One of the following is perfectly adapted to your area:

The New DELFOS 9169

Highest yield ever officially recorded! Big, Fluffy bolls for hand or mechanical picking. Excellent staple!

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High Gin Turnout! Light foliage! Early Maturity! Stays in the boll. Developed for short growing season areas.

P.S. STONEVILLE'S Generous FREE SEED for REPLANTING offer is your guarantee of more uniform stands and healthier plants.

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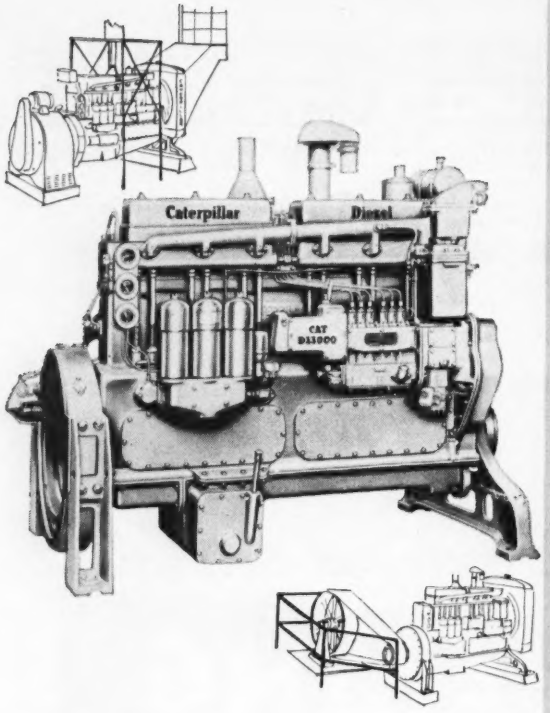

Announcing the

NEW 190-HP CAT* D13000 ENGINE

CATERPILLAR ADVANCED DESIGN FEATURES IN THE NEW D13000

While retaining such time-proved features as aluminum alloy main and connecting rod bearings, "Hi-Electro" hardened and Superfinished bearing surfaces, exclusive Caterpillar fuel injection system, ability to use low-cost No. 2 furnace oil without fouling, etc., the new D13000 incorporates many new features, among them:

NEW Valves, Inserts, Rotators—new components, standard in the breathing system, combine increased breathing ability with longer valve life—make possible additional horsepower output and lower maintenance costs.

NEW Vibration Damper—sturdy, metal-enclosed, fastened directly to front of crankshaft. Keeps unit vibration-free at higher speeds. Optional in installations where engine speed is kept below 1000 r.p.m.

NEW Camshaft—improved high lift cam profiles give smooth valve seating and increased breathing ability. This increased capacity, also made possible by new oil-bath air cleaner and larger intake and exhaust manifolds, insures low exhaust temperatures and adequate reserve power.

NEW Water Pump—larger, with a greatly increased capacity to answer cooling needs of this modern, high-powered diesel.

NEW Pistons—oil-cooled, made of high-strength, lightweight aluminum alloy with stainless-steel heat plugs in the high-temperature zone and cast-in iron bands for the top ring groove to give best service at lowest final cost.

NEW Oil Pump—features not just one, but two pressure controls to assure correct lubrication for all moving parts from the first turn of the crankshaft.

For complete details, specifications, attachments, etc., see your nearby Caterpillar Dealer

...and the new 100-KW D13000 Electric Set!

For years, the profitable performance of both the Caterpillar D13000 Engine and D13000 Electric Set has been a byword with power users. Now, here's a new D13000, designed and built to bring you even greater power, production and profits.

In the new D13000 Engine, you get 21% more brake horsepower. Its governed speed, raised to 1200 r.p.m., provides greater versatility and productive capacity. While keeping its outstanding time-tested parts, it adds advanced design features to set new high standards of stamina, dependability, economy and long life. And its wide variety of matched accessories and attachments makes it readily adaptable for any need.

Have you an operation requiring power in the 145 (continuous) to 190 (intermittent) horsepower range? Your best buy is the new Cat D13000 Engine! Does your setup call for a unit furnishing 100 KW? The new D13000 Electric Set is the best answer to that need! Both units are easy to install. Get the *complete* facts about the rugged new D13000 from your nearby Caterpillar Dealer!

Caterpillar Tractor Co., Peoria, Illinois, U. S. A.

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D13000—
A NEW STANDARD
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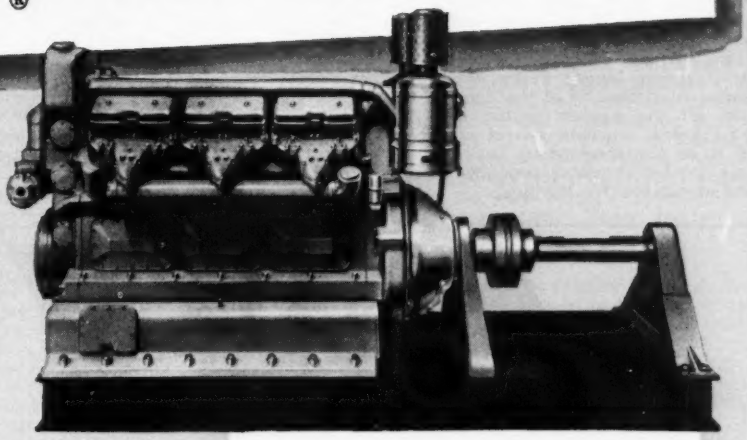


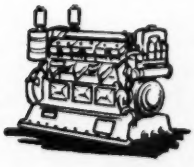
Experienced engine men, who are trained in analyzing the power needs of cotton gins, are at your service at your Caterpillar Dealer. We can quickly and accurately determine your requirements and give you an estimate on repowering with sure-starting, sure-running Cat Cotton Gin Engines. This service is without cost, so call us, today!

MONEY-SAVING SERVICE...

Skilled mechanics are ready to answer your call for service, day or night . . . specialized tools and know-how insure a minimum of downtime!

PARTS — IN STOCK . . .

No waiting for replacement parts — we have complete parts stocks for all models of Cat Gin Engines. They're the same precision quality as the ones they replace!



COMPLETE LINE OF GIN POWER . . .

Cat Gin Engines are available in 9 sizes up to 400 HP for continuous duty. A wide selection of mountings, clutches, cooling systems, starting systems and other attachments enable you to custom-tailor power to your preference!

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Central Texas Machinery Co.
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Darr Equipment Co.
Dallas — Gladewater — Wichita Falls

Wm. K. Holt Machinery Co.
San Antonio — Corpus Christi — Austin

West Texas Equipment Co.
Amarillo — Lubbock

As viewed from The "PRESS" Box

• A Job That's Never Done

"THE NATIONAL COTTON Council's job is never done." Members of the cotton industry will say "amen" to this statement, made in a recent editorial in the Arizona Farmer-Stockman. "In fact, it grows bigger every day," the editorial continues. "And the Council deserves all the support cotton growers (and ginners, crushers and others) can give it in the tremendous task of research for better cotton products in the world of competitive buying."

The editorial phrase "tremendous task of research" is an apt description also of another coordinated program in behalf of a product of the cotton plant. This is the research program for the cottonseed crushing industry which is discussed in the lead article in this issue of The Press, starting on Page 7. While the article was written primarily for crushers, it should be of interest to ginners and other branches of the cotton industry. Anything that increases the value of cottonseed benefits all who are associated with cotton. The cooperative efforts of the National Cottonseed Products Association's Educational Service and the many research leaders working on cottonseed problems represent an outstanding fight in behalf of cotton.

The Council and the NCPA are only two examples, among many that could be cited, of the value of trade associations. With wise and vigorous leadership, trade associations are able to mass great forces of brainpower and technical skill in behalf of such products as lint and cottonseed. They can enlist the help of many other individuals and organizations whose cooperation can be secured only through organized effort. They multiply many times in value the relatively small amount it costs to belong to a state, regional or national trade association. That is why, to repeat the phrase of the Arizona editorial, "they deserve all the support" any of us can give them.

• Gin Insurance Rates

PLANS to publicize steps through which ginners can reduce their fire insurance rates were made at a recent meeting of the fire insurance subcommittee of the Delta Council ginning improvement committee. Members emphasized that ginners actually help make their own fire insurance rate through their ginning facilities and practices.

Lee Cossar of Leland, chairman of the subcommittee, presided at the Stoneville meeting. Also in attendance were W. W. Turner, Ruleville, W. F. Flautt, Tutwiler, Tom J. Johnston, Extension ginning specialist, John Ross, agricultural economist at the Stoneville Cotton Ginning Laboratory, B. F. Smith, secretary-manager of Delta Council, and Walter Little, Jr., assistant manager, of the Mississippi organization.

• Weather Revolution

"WE CAN expect a long term drouth cycle to remain with us. Particularly hard hit will be the western states," says William J. Baxter, author of Today's Revolution in Weather.

His research shows a general warming up of the earth and a northward movement of the heat zone. Baxter thinks that the warm weather cycle will last for at least another 30 years.

• Golden Anniversary

ANOTHER ANNIVERSARY for you to remember, in case you don't have enough, is the fiftieth anniversary of the ice cream cone, which was invented in 1904. And, this also is the twentieth anniversary of the paper milk carton, of which some 10½ billion are expected to be used in 1954.

• Poster on Picking

A POSTER stressing the importance of proper operation of cotton pickers to assure maximum value of cotton has been distributed to members of the Arkansas-Missouri Cotton Ginners' Association by the Association headquarters.

• Another Infestation

A SECOND pink bollworm infestation was found in Louisiana late in September when six specimens were discovered in gin trash in De Soto Parish.

Earlier in the season a half-dozen of the pests were found in cotton being

ginned at Lake Charles in Cameron Parish.

Mississippi now has three quarantine stations operating at Greenville, Natchez and Vicksburg to guard against spread of the pink bollworm. The stations are operating 24 hours a day inspecting traffic at the three Mississippi River bridges. Two gin trash machines also have been in operation.

Arkansas inspectors recently found eight live pink bollworms in cotton bolls carried by a crew of pickers from Texas, and also found 20 of the pests in another inspection at a road block near Hope. Eight men are operating road blocks on three highways from Texas, and five area inspectors are working in eight quarantined counties in western Arkansas. All ginning in these counties must end by Feb. 5 and cotton stalks must be plowed under or otherwise destroyed by Jan. 31.

• Buckeye Is Host

BUCKEYE COTTON OIL CO., Memphis, was host to the Engineers Club Sept. 27. Following luncheon at noon, the group toured the cellulose and specialities mill.

• Shh! Hens at Work!

A PLASTIC nest liner has been developed by B. F. Goodrich Chemical Co., which reports that a quieter atmosphere results in the hen house. Distractions such as eggs rattling on the screens are eliminated, and when biddy lays her egg, the plop is softened. This is important to good egg production, chicken men say.

• Deer Chasers

FIRECRACKERS resembling tiny bombs have given farm crops protection from deer and predatory birds in several Texas counties this year. Fuse ropes with firecrackers inserted to explode 45 minutes apart do the trick.

In one trial in Colorado County a 48-foot fuse rope was placed at two locations in a peanut field visited by deer. The fuse was lighted at 9 p.m. and burned all night. The method has proved very satisfactory, but must be continued if once started, reports Doyle L. Moore, county agent.

• From the Fashion Front

DURING World War II cotton textile makers started printing features of several world leaders on the inexpensive cotton cloth which forms the basis of feminine attire in many parts of Africa. The bright patterns appealed to the people, and it was thus that many Africans who had only hazy ideas about England and the U.S. became acquainted with King George, Roosevelt and Churchill. Now, though, King Baudouin of Belgium, done in red and green on a bright blue background, is the popular favorite.

High style in Africa uses this cloth to create headdresses, wrap-arounds or slings for babies strapped to the mother's back. Such costumes often produce astonishing wrinkles and grimaces on the countenances of Churchill, et al.

• Micronaire Tests

TESTS recently completed show that Micronaire testing of cotton samples can be done under a wide range of atmospheric conditions. The procedure used was devised to adjust weights of specimens to compensate for moisture content under different conditions. A complete report of the study has been published by USDA.

• Forewarned Is Forearmed

"SOIL AND WATER depletion is creeping upon us, and if we do not combine our efforts to conserve the resources, it shall not be long before our fertile and rich High Plains area is in poor condition." This statement was made by George Mahon, Congressman from Texas, who spoke at a recent meeting of the Texas State Soil Conservation Board in Lubbock. "If we do not do something, many farmers, in 20 years, will look back and cry out, 'Why didn't someone warn us this would happen?' I am warning you now," Mahon declared.

• Mail Order Mounts

ANOTHER new fangled idea that would astonish Grandpa's pa is a new merchandising medium for Shetland ponies. At least one mail order concern, Spiegel, Inc., with headquarters in Chicago, is offering ponies in a variety of colors "41 to 46 inches high at the saddle, gentle and ready to ride." For this, you pay $299.50. Or, a colt may be had for about half that price.

■ **CHARLES SIGNOR, who has been with Western Cottonoil Co., now is with the Lubbock National Bank as vice-president.**

You REALLY LIVE at an

Affiliated National Hotel

Comfortable Rooms

Delicious Meals

Conveniently Located in 21 Prominent Cities

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DISTRICT OF COLUMBIA
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INDIANA
HOTEL CLAYPOOL.....Indianapolis

LOUISIANA
JUNG HOTEL.....New Orleans
HOTEL DESOTO.....New Orleans

NEBRASKA
HOTEL PAXTON.....Omaha

NEW MEXICO
HOTEL CLOVIS.....Clovis

SOUTH CAROLINA
HOTEL WADE HAMPTON.....Columbia

TEXAS
HOTEL STEPHEN F. AUSTIN.....Austin
HOTEL EDSON.....Beaumont
HOTEL BROWNWOOD.....Brownwood
HOTEL BAKER.....Dallas
HOTEL TRAVIS.....Dallas
HOTEL CORTEZ.....El Paso
HOTEL BUCCANEER.....Galveston
HOTEL GALVEZ.....Galveston
HOTEL JEAN LAFITTE.....Galveston
CORONADO COURTS.....Galveston
MIRAMAR COURT.....Galveston
HOTEL CAVALIER.....Galveston
HOTEL PLAZA.....Laredo
HOTEL LUBBOCK.....Lubbock
HOTEL FALLS.....Marlin
HOTEL CACTUS.....San Angelo
HOTEL MENGER.....San Antonio
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Superb Service

WASHINGTON
Washington, D. C.

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Dallas, Tex.

1954 FARM CENSUS FINDINGS WOULD ASTONISH ELI WHITNEY

Enumerators will count such things as electric pig brooders and television. Also faithfully noted will be the disappearance of scenes like this one.

By KATHERINE RUSHING PETERSON
Bureau of the Census
Washington, D. C.

THE 1954 CENSUS of Agriculture, sixteenth in a series going back more than a century, will bring up to date statistical facts concerning the industry which now feeds, and to a large extent clothes, 163 million Americans. It will provide information on the number, size and value of farms, tenure, land use and conservation practices, crops, livestock, facilities, expenditures, mortgage debt, cash rent, age and race of farm operator, and off-farm work.

The first farm census was taken in 1840, some 50 years after Whitney's cotton gin became the link between the South's productive capacity and the demand for raw material created by eighteenth century inventions for carding, spinning and weaving cotton. This first look at the nation's farms was limited in scope and covered only such items as number of principal domestic animals, production of principal crops—including an 1839 crop of 1,976,198 bales of cotton—value of poultry and products of the dairy, and production of wool.

The farm inquiry was greatly expanded in 1850. This census covered 1,449,073 farms with total acreage of 293,560,614, valued at $3.3 billion. A century later, the 1950 census covered 5,382,162 farms with a peak acreage of 1,158,565,852 and a peak valuation of $75.3 billion.

In 1850 the nation's total population, largely rural, was slightly more than 23 million, just about the size of that portion of the population classed as rural-farm 100 years later when the 1950 census recorded a total of over 150 million people.

Peak farm population was estimated at about 32.5 million in 1916, when one person was needed in the agricultural population to provide two people in the urban population with food.

• **New Questions** — With the nation's economy expanding and growing more complex, succeeding farm censuses have added new questions and recorded the changes in farming in the various states and sections of the country.

A question on acreage from which cotton was picked was first asked in the 1880 census, when 14½ million acres were reported for the 1879 crop, with a harvest of 5.7 million bales. Cotton acreage rose at each census to a peak of over 43 million acres in 1929 when the crop was 14.6 million bales. Peak production recorded in a census year was 15,419,458 bales in 1949, picked from only 26.6 million acres. Largest number of farms reporting cotton grown was 1,986,726 in 1929. The 1949 crop was reported from only 1,110,876 farms.

In 1849 Alabama ranked first in cotton production with 564,429 bales. In 1949 Texas was by far the leading cotton state, with a production of about 5 million bales more than Alabama's record of 100 years before.

In the 1880 census, Georgia reported the largest cotton acreage, 2,617,138 acres for the 1879 crop year. In 1949 Texas had over 10½ million acres in cotton, with Lubbock County accounting for 359,548 acres—1.4 percent of the total cotton acreage in the U.S.

• **Owner-Operators** — Information on farm tenure was first obtained in the 1880 census, when 2,984,306 farms in the U.S. were operated by owners, 977,229 of which were in the South. The 1950 census records 3,914,506 owner-operators in the nation, with 1,737,122 of these in the South.

An inquiry on farm mortgage debt has been included in the census since 1890, but various factors affect the comparability of the figures. The 1930, 1940 and 1950 figures are comparable for determining trends in debt and number of mortgaged farms, and show a drop from 40 percent of all farms mortgaged in 1930 to 39 percent in 1940 and 27.5 percent in 1950. In the South 33 percent of all farms had mortgages in 1930, 33.4 percent in 1940, and 22 percent in 1950.

Among remarks incorporated in the introduction to the Agriculture Report of the 1860 census is one which seems a more fitting comment for this day of the truck, tractor, mechanical cotton picker, and electrically operated labor-savers of every description, than for the year preceding the start of the War Between the States. To quote: "Fortunately the people of this country have not been slow to adopt the most efficient substitutes for animal power, and the inventive talent of the nation has found an ample and remunerating field for its exercise in originating and perfecting instruments adapted to all the wants of the farmer and planter."

• **Living Standards Rise**—In 1920, 7 percent of all farms in the U.S. and 2.7 percent of all farms in the South reported gas or electricity in the farm operator's house. In 1930, 13.4 percent

Official opening date for the 1954 Census of Agriculture was Oct. 4, and enumeration will start at various dates during October and November in different parts of the country. Each farmer will have about 100 questions to answer, and questionnaires will be sent through the mails prior to the visit by the census taker.

of the nation's farms and 4.2 percent of those in the South reported electricity on the farm. In 1940, the figures were 33.3 percent for the nation and 18.7 percent for the South, and in 1950 over 78 percent of all farms in the U.S. had electricity and 70.5 percent of all farms in the South were so equipped.

Farms reporting motor trucks rose from 2 percent of all in the U.S. in 1920 to 34 percent in 1950. In the South less than one percent reported trucks in 1920, 27 percent in 1950.

Percentage of U.S. farms reporting tractors rose from 3.6 percent in 1920 to 47 percent in 1950. In the South, one percent of the farms reported tractors in 1920, over 26 percent in 1950.

The increase in tractors and trucks on farms has been accompanied by the inevitable decrease in numbers of work animals. The first farm census in 1840 counted over 4 million horses and mules on U.S. farms. This number rose to the 1920 census record of 25.2 million, and has since declined until the 1950 census reported only 7.6 million horses and mules. A decline of over 4 million took place between 1945 and 1950.

Between 1920 and 1925, for every tractor acquired on U.S. farms, there was a decline of 12 horses or mules. In the South, the figure was about 17 fewer work animals for every tractor increase. In the period between 1945 and 1950, the decrease in horses and mules per unit increase in tractors was 3.4 for the U.S. and 2.5 for the South.

Sadness over the disappearing horse and mule may be lightened by the practical thought of millions of acres of farmland freed for producing food and clothing for our ever-increasing population.

• **Off-Farm Work**—Again in the 1954 census farmers will be asked how much time they worked off their farms during the year. Of all farm operators reporting off-farm work for 1949, about 24 percent said they worked more than 100 days at other jobs. This was an increase from about 17 percent so reporting in 1939. In the South, of all operators who did off-the-farm work, slightly more than 24 percent said they worked 100 days or more in 1949; about 16 percent in 1939.

Census figures show a trend toward an older average age for farm operators in the U.S., with Southern farmers slightly younger than the national average. In 1940, the average American farmer was 48 years old, the average Southern farmer was 46½. In 1950 the national average was 48.3, for the South it was 48 years.

Two items of modern farm equipment to be counted for the first time in the 1954 census would surely amaze the 1860 writer who spoke of "instruments adapted to all the wants and needs of the farmer." These are the electric pig brooder and the television set.

Missouri Maid Named

Miss Aletha Pitts, 19-year-old daughter of Mr. and Mrs. Walter Pitts, Sikeston, has been named Missouri Maid of Cotton. She is a student at Gulf Park College, Gulfport, Miss., where she is majoring in home economics.

She will participate in the finals to be held in Memphis early next year. Her alternate is Miss Janet Stewart, also of Sikeston.

Vapor Moistener Is Used In San Joaquin Valley

A vapor moistening system for cotton picking machinery which has been developed by Arthur Skaggs of Fresno, Calif., is being used this season in the San Joaquin Valley.

The system puts a minimum amount of vapor on the picker spindle and completely covers the spindle with vapor so that it will run cleaner and pick more cotton because of higher molecular attraction, Skaggs says.

The device utilizes the exhaust of the motor for heat to make steam. The amount of water used depends on the relative humidity of the atmosphere. Steam is fed through tubes to the picker bar stand where a small jet sprays steam on each picker spindle just prior to its contacting the cotton boll.

The unit fits any type of picking machine, Skaggs reports.

Lillian Sledge Transfers To New York Office

Lillian L. Sledge of Meridian, Miss., has joined the New York staff of the National Cotton Council as sales promotion assistant handling the Maid of Cotton, children's wear and home furnishings campaigns.

Transferring from the Memphis office, Miss Sledge succeeds Bess Green, resigned, at the Council's offices at 40 Worth Street, it was announced by Ernest Stewart, New York manager.

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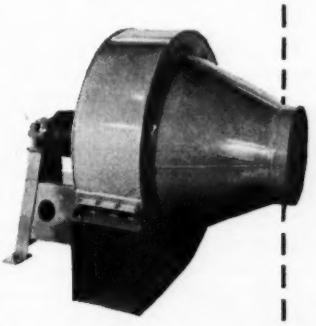

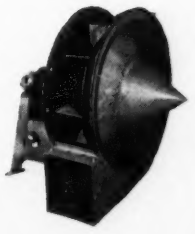

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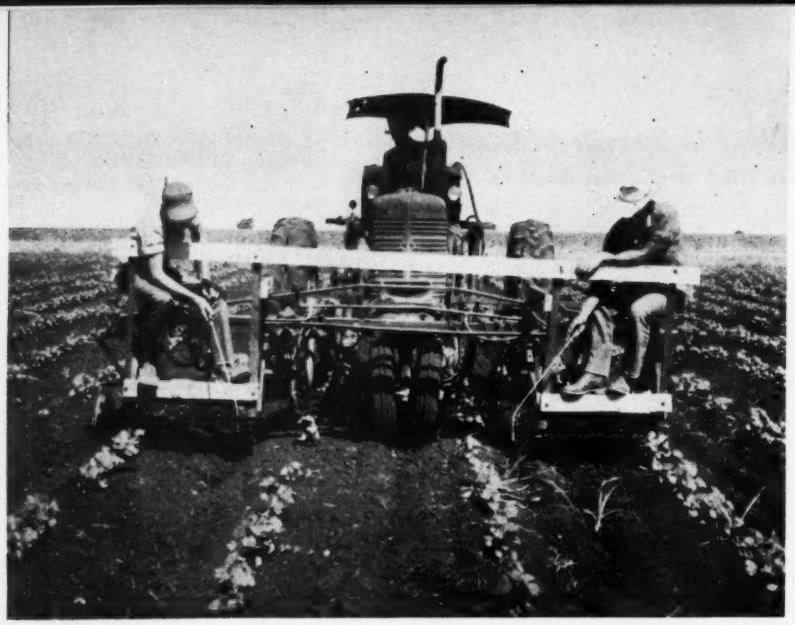

LABOR is used efficiently in oiling scattered Johnson grass in cotton when the method shown here is adopted. These operators treat a larger acreage of cotton per day than operators on foot, but the man on the ground treats the grass more thoroughly with much less oil. "Each year," says H. E. Rea of Texas A. & M. College, "brings us closer to . . . methods for wide scale practical use."

Spot Oiling Work Continues

Mechanized Johnson Grass Eradication Is Sought

■ EXPERIMENTAL tractor-mounted sprayers used this season in Texas for applying oil to Johnson grass offer much promise for control of a nuisance in cotton fields.

SPOT OILING to control Johnson grass has shown a great deal of promise in experiments by the Texas A. & M. College System for several seasons. Until this year, the work has been done on foot, with the operator carrying oil in a knapsack sprayer.

This method has proved much more effective than hand hoeing, which ordinarily only delays the growth of Johnson grass. One application, properly made, will kill Johnson grass to the ground, and repeated follow-up treatments will eradicate the grass in one season.

Percent of kill depends primarily on the care taken by the operator. If he is skillful, he can kill grass as close as two inches to cotton plants without hurting the cotton.

A report on spot oiling Johnson grass with knapsack sprayers was published in the Feb. 27 issue of The Press. This summer more work has been done by H. E. Rea, associate professor of agronomy at College Station, and M. J. Norris, associate agronomist, Bluebonnet Farm, McGregor.

Since spot oiling has proved useful, the researchers have been looking for faster, more efficient ways to get the oil on the Johnson grass crowns. Mechanized spot oiling has a long way to go yet, but progress is being made.

• **Experimental Rigs** — Tractor-mounted sprayers were used on the Bluebonnet Farm at McGregor this summer. One type used four spray lines attached to a distribution pipe, and four operators followed behind the tractor, spot spraying Johnson grass as they walked. Each operator covered two rows normally, but his hose line was long enough (12 feet) so he could help the operator on either side of him.

Other rigs were built for the operators to ride on a platform mounted on the front of a four-row tractor cultivator so they could spot spray Johnson grass at the same time the cotton was cultivated. Spray operators on these rigs could take one or two rows at a time, depending on the infestation of Johnson grass. The hand valves, spray-booms and nozzles used on tractor mounted sprayers were the same as those used on the knapsack sprayers. Tractor pumps used were regular power take-off gear pumps normally used for insect control work. A pressure of 12 pounds per square inch was used in the spray lines.

Workers report that the spot spraying crew using the walking rig was able to cover two to three times the acreage that a crew with hoes could cover, and they did a better job than the hoeing crew, too.

On the riding rig, best results were obtained when the operator took only one row at a time, and when the tractor traveled in low gear at a slow speed. "As speed of the tractor was increased, the percent kill of Johnson grass was decreased. We were not able to do a good job at normal cultivation speed," Norris reports.

"Using the mechanized systems of spot spraying this summer, we were able to control Johnson grass on 1,500 acres of cotton without hoeing. We did not eradicate the grass, but we were able to do a better and more economical job holding the grass back than we could by hoeing," Norris says.

• **More Research Needed**—Agronomists working on the eradication of Johnson grass are highly encouraged by developments in the spot oiling program. If research could be expanded and speeded up now, practical applications for the cotton producer would come much faster. Since Johnson grass is an ever-present nuisance in cotton fields, the value of liberal financing for such research is obvious to people in the ginning and crushing industries.

CROWN OILING of Johnson Grass in row crops can be done with spray lines from a field sprayer. This rig was used this summer at Bluebonnet Farm, McGregor, Texas. Research workers point out that oil and labor are used just as efficiently when gravity flow hand sprayers are used, but operators like the method pictured here better, since they do not have to carry the oil.

Gerrard Equipment Repairs Broken Bales and Bands

A simple and economical method of repairing fanhead bales and broken bands on cotton bales has been devised by A. J. Gerrard & Co., Melrose Park, Ill.

With A. J. Gerrard's bulkbinder strapping equipment, damaged bales no longer have to be returned to the compresses for rebanding. The bulkbinder stretcher provides all the tension necessary to properly band them right at the storage or shipping point, or wherever the broken bale may be discovered.

One man using this equipment and salvaged bands can, in just a few minutes' time, return any bale to approximately normal compress size. The replaced ties will pass the closest inspection and have no "spiders" whatsoever.

Shown in the accompanying photograph is a bale which has been repaired so it can be shipped or stored. While no one recommends bales that appear as ragged as this, emergencies often make it desirable to be able to repair broken bales quickly. Arrows indicate points at which the bale was rebanded by the Gerrard method. Bulkbinder tools and accessories used in the rebanding operation are numbered as follows: (1) bulkbinder stretcher, (2) No. 540 strap cutter, (3) bulkbinder sealer, and (4) bulkbinder seals.

Bulkbinder equipment is being successfully used to recooper cotton bales at warehouses, freight docks, and shipping ports, as well as at gins and compresses.

A. J. Gerrard sales-service representatives are located throughout the cotton country and will gladly demonstrate bulkbinder equipment or assist in solving any specific strapping problems. For more information or to request a demonstration, write A. J. Gerrard & Co., 1962 Hawthorne Square, Melrose Park, Ill., or The Cotton Gin and Oil Mill Press, P. O. Box 444, Dallas 21.

■ **HERBERT H. LUKE, an agronomist, is temporarily working with Dr. E. E. Hartwig, USDA, at Stoneville, Miss., studying soybean varieties and research methods. His permanent assignment will be at Gainesville, Fla.**

• Ground Water Must Be Used Wisely

CONSERVATION of ground water has received very little emphasis compared to conservation of other resources, says Tom O. Meeks, State College, New Mexico Soil Conservation Service. In fact, the conservation of ground water was unheard of until recently, mostly because no one realized there was any necessity for it, and very few knew what could be done about it, assuming that it was necessary.

Ground water is probably the most misunderstood of all our natural resources, and its conservation presents an entirely different problem from that of conserving surface waters, Meeks says.

The common conception has always been that water underground offers an unlimited supply, and this theory is still held by many ground water users.

In recent years, there has been a notable trend throughout the country to develop more and more ground water supplies in ever larger quantities, generally not to replace surface supplies, but to meet new demands for water.

The importance of maintaining our ground water supply should be apparent to all. Millions of people depend upon ground water for their very existence. The quantity of ground water stored in our underground reservoirs is more than that of all surface reservoirs. About one-half of our population depends on ground water.

The demand for ground water supplies is increasing rapidly, and the available supply at any given locality places limits on the expansion of all types of users.

The conservation of ground water is a subject so vast and complex that only a small part of it can be covered here. The wise use of ground water in many instances may actually increase the quantity by making more space available for ground water recharge and by inducing movement of water into the area from surrounding areas.

First, the amount of water available must be determined. This information is supplied by a ground water inventory. The U.S. Geological Survey pioneered in this field and still continues to make this type of study.

The basic problem is to determine the total additions to the reservoir and the total withdrawals in a given length of time. The information necessary to complete the inventory requires a considerable amount of time and technical skill.

It must not be concluded that a considerable lowering of the water table is necessarily serious or detrimental to the water supply, Meeks says. Just as a surface reservoir must be drawn down in order to catch and preserve flood flow, so the sub-surface reservoir must be lowered sufficiently at the end of a dry season or a cycle of dry years to absorb the water of the following wet season or cycle.

One great advantage of ground water reservoirs over surface reservoirs is that underground storage can be used in many places where surface storage would be extremely costly. In arid regions, underground storage also minimizes the loss by evaporation.

Ground water reservoirs along watercourses will become increasingly important to meet requirements for water. This may have the same effect upon the flow of a stream as pumping directly from the river, but will utilize surplus water which now continually flows into the ocean. The ground water reservoir along a watercourse may also have a higher sustained yield than the surface supply if the stream flow fluctuates markedly.

The purpose of ground water conservation should not be one of scaring people into thinking there is an impending shortage of ground water. The whole question is one of being able to recognize when the use from a ground water reservoir begins to exceed its capacity for replenishment, and to install measures to protect the users from the disaster of overdrawing the supply, Meeks says.

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Increase Probable In Foreign Lint

■ SMALLER supplies for export may result from reduced stocks and increased domestic use in producing areas.

Free world cotton production may be as much as three million bales below last season, although any forecasts at this time are still very speculative, says the latest bulletin of the International Cotton Advisory Committee, Washington.

Current indications of production are for around 26.5 million bales which would compare with the revised 1953-54 estimate of 29.9 million bales.

Outside of the U.S., production in free world countries is expected to be larger than last season, when these countries produced 13.4 million bales. An increase of one to one and one-half million bales is anticipated this season.

• **Less for Export**—Supplies for export, however, are expected to be about a million bales smaller in these free world countries, the Committee states. This situation, in spite of the increased production, is caused chiefly by reduced stocks in major exporting countries, notably Brazil and Egypt. Expanding domestic textile industries in some countries, including Pakistan and Turkey, also may curtail exports.

A realistic estimate of probable exports from these free world nations, outside the U.S., would be around 7.5 million bales, down about half a million from the actual exports in 1953-54.

Cotton expected to be available for export includes from the U.S. 9.9 million bales, Mexico 1.1 million, Brazil 1.1 million, and Egypt 1.6 million bales, with less than a million bales each from other exporting countries.

• **Import Requirements**—The Committee's analysis indicates that net importing countries of the free world may have difficulty in maintaining cotton imports at the level of last season, but also that any decline in volume should be relatively minor.

Importing countries are estimated to have consumed 15.1 million bales of cotton in 1953-54, as compared with 13.7 in 1952-53. These nations used 11.4 million bales of imported cotton which compares with 10.2 million the preceding season.

Stocks of cotton in net importing countries last Aug. 1 were 5.1 million bales. This was about 100,000 bales more than a year earlier, but the consensus of the trade is that stocks were relatively small in view of current levels of consumption.

"Considering this," the report commented, "it would seem quite unlikely that these stocks could decline to any considerable extent . . . unless there were a sizeable drop in consumption during the current season."

Whether stocks will increase this season will depend on several factors which are uncertain at present.

FACT

for ADVERTISERS:

■ Your advertising message in this issue will be read by cotton gin and oil mill men in every cotton and oil-seed-growing section of every producing state—from California to the Carolinas and from the Gulf to the Canadian border.

• Lady Gin Manager Is Successful

MAYBE not the only woman gin manager in the business, but certainly one of the very few, is Mrs. Opal Mae McCurley, manager of the Celeste Cooperative Gin Association, Celeste, Texas.

Mrs. McCurley started in the business as a bookkeeper and in 1953 was named manager of the gin. In that year she ginned 2,780 bales of cotton, and made about $4,000 worth of improvements in the plant. The association this year has installed about $23,000 worth of gin stands and drying systems to handle snapped and mechanically picked cotton.

She was born in Hunt County, and she and her farmer husband live on a farm west of Celeste. Mrs. McCurley attended Tyler Junior College and Texas State College for Women, Denton.

Light, Frequent Irrigation Preferred for Cotton

Frequent, light irrigations proved to be best for cotton during tests at the New Mexico Experiment Station, State College.

Overirrigating cotton on adobe soil delays maturity and also increases damage from Verticillium wilt, the tests showed.

Water is a good growth regulator if irrigations are properly timed, but heavy applications on adobe or sandy soils are seldom justified, says Gordon Hoff, Extension agronomist.

Plots irrigated before moisture was entirely depleted in the root zone yielded up to 180 pounds more lint per acre than plots which were left without water until cotton plants indicated a lack of moisture.

Progress of the Crop

A SHORT COTTON CROP has been harvested unusually rapidly over most of the Cotton Belt. Information received for this final progress report to be published this season by The Press indicates that 1954 has produced one of the "fastest" cotton crops in history. This speed has resulted not only because of the smaller crop, but also is due to the open weather that prevailed for picking, rapid maturing of the crop and the adequate labor supplies in most localities. Most observers state that peak of the crop movement this season was about two weeks earlier than usual.

Yields in some cases have been better than growers expected, but it is not unusual for crop damage to be overestimated when such a drouth as 1954's prevails. It has been a season of record high temperatures and heat from Oklahoma-Texas to the Atlantic Coast; and, as this was written, the industry was watching to see how this would be reflected in the October USDA cotton report.

Insects have been a minor factor in the progress of the crop in most states this season. There has been damage, even severe damage in a few spots, but the over-all picture has been better than usual. One matter for concern has been the finding of pink bollworms in gin trash in Arkansas and Louisiana, interceptions of the pest at inspection stations on highways there and in Mississippi, and the number being found in Central Texas gin trash.

ALABAMA continued to have hot, dry weather during most of the first half of October, following a pattern set by the previous nine consecutive months of below normal rainfall. Picking and ginning are much farther along than usual at mid-October. Drouth caused the staple of ginnings to date to be shorter than usual. More than half of the estimated crop was ginned by Sept. 16.

ARIZONA cotton harvest is in full swing and was delayed very little by light rains which fell Oct. 3-4. Warm weather favored development of late cotton but also encouraged insects, which included leaf rollers, salt marsh caterpillars and others. On the whole, though, conditions continued favorable for cotton as they have during most of the season.

General rains in **ARKANSAS** only partly relieved one of the hottest, driest seasons in history. During June, July and August, Little Rock, for example, had 43 days of 100° or over, compared with a maximum of 23 days of 100°-or-over weather for other years on record. And, summer rainfall was only 23 percent of normal. Cotton picking was slowed by recent rains, but is about one-half to three-fourths completed in different areas. Finding of a pink bollworm larva in gin trash in Hempstead County should spur activity to destroy cotton stalks and field trash. Yields are low and the rains hurt the grade of some open cotton.

Good progress also continued in **CALIFORNIA.** Defoliation and hand picking were under way in the San Joaquin Valley, where there frequently was enough dew for use of dusts. Bakersfield area reported defoliation mostly completed and machine picking under way. In the Palo Verde Valley defoliation was active and machine picking had started.

GEORGIA has about finished harvesting a short crop. Generally the past two weeks were unseasonably warm and dry, as the past summer months have been. Nearly three-fourths of the estimated crop was ginned by Sept. 16. Grades have been fair to good, and yields are estimated at about one-half of normal.

Heavy rains in **LOUISIANA** helped drouth areas and caused some second growth of cotton, but hampered harvesting. More than half of the crop was picked and ginned by the end of September.

MISSISSIPPI welcomed the rains of one-half to two inches which fell over most of the state, but they were too late to help cotton and delayed picking. The crop, however, matured rapidly and has been harvested fast. Growers are being urged to destroy stalks promptly to aid insect control.

Cotton in **MISSOURI** was opening prematurely in the past two-week period, until rains came. These delayed picking and caused sunshine to be needed in the Boot Heel.

September rains in **NEW MEXICO** helped the state's general range and crop outlook; but caused flood losses of cotton in the Pecos Valley. Rain delayed cotton picking and slowed the opening of bolls, but harvest progressed more rapidly later in the period. Picking is generally ahead of last year in early sections, but the crop is a little later than normal in east central counties.

NORTH CAROLINA has harvested over half of its crop. The weather continued warm with only scattered showers and much of the state remained too dry for fall planting.

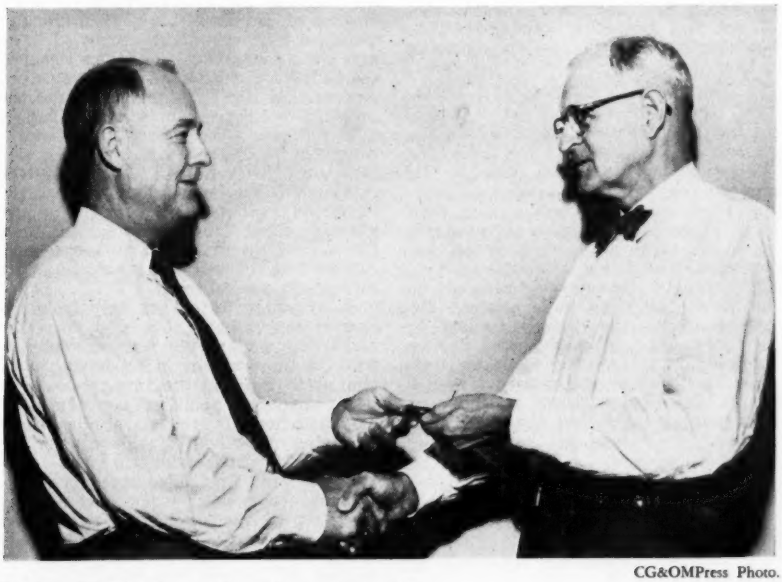
In **OKLAHOMA** movement of cotton has reached or passed its peak, with two-thirds or more of the crop open and harvesting proceeding rapidly. Yields range from poor to fair, depending on the amount of rain that was received. Very heavy rains in southeastern areas interrupted harvesting for a few days. Irrigated cotton harvest is getting under way.

Over three-fourths of **SOUTH CAROLINA's** drouth-hit crop has been picked. Harvest probably was the most rapid in history, due to the open weather and small crop. Much of the state has been powder dry, with the ground hard and fall planting seriously delayed.

TENNESSEE had drouth-relieving rains but they were too late for cotton and other summer crops. Cotton picking was active until interrupted by rains.

Harvesting in **TEXAS** made good progress except where spotted light to heavy rains fell. By Oct. 1 harvesting of dryland cotton was much farther advanced than usual. On the whole, growers have been prompt in destroying cotton stalks and relatively few are reported trying for a late crop and thereby risking more insect survival for 1955. Harvesting of irrigated cotton was at

(Continued on Page 39)



CG&OMPress Photo.

R. P. Tull Gets Service Award

R. P. TULL, left, manager of Swift & Co. oil mill in Dallas, is shown receiving his 15-year service award from B. B. Hulsey of the division office. Tull began work with Swift as a seedbuyer at Houston and was later manager at San Antonio before coming to Dallas. He is president of Texas Cottonseed Crushers' Association and Hulsey is a former president of that organization.

The Effects of Drying Cotton

(Continued from Page 11)

spinner has several jobs, the most demanding being to repair the down ends to return those spindles to production.

To a very large extent, the work load of a spinner is determined by the expected number of ends that will be down on the spinning frames she operates. If for any reason the number of ends down increases much beyond the expected number, the spinner falls behind in her work. This is costly in terms of the extra help needed and in the loss in production on the spinning frames. Thus, the fewer the ends down, the more machines can be operated per spinner, and in addition, the quality of the yarn is improved because of the reduced number of splices in it.

Although cottons ginned under all three conditions of ginning spun very well as compared to average mill operations, it was found that the GINMILD and GINHOT cottons had more spinning ends down per thousand spindle hours than did the GINWET cottons. (Table II.) The determination of spinning efficiency is a very technical operation requiring very close control to be sure that the ends are down because of differences in cotton and not because of differences in operators or spinning frames. These precautions were taken in this study. The data on ends down were based on a total of 61,776 spindle hours divided between the three lots of test cottons, which is considered to be a thoroughly adequate test.

Table II. Ends Down per Thousand Spindle Hours. 40's Yarn in Commercial Test of Cottons Dried by Three Methods. Averages of All Spinning Frames.

GINWET	26.2
GINMILD	29.9
GINHOT	31.8

Briefly then, the results of the spinning tests are that when yarn is spun from cotton that had been overdried before ginning on commercial types of equipment, yarn strength is reduced somewhat, yarn appearance is essentially unaffected, cloth strength is reduced some, and spinning ends down are increased as compared to cotton that was ginned with about normal moisture content. Further, the rates of drying had relatively little to do with the effects of the overdried cotton on its spinning performance and yarn qualities, although the cotton dried rapidly showed generally poorer performance than the cotton overdried less rapidly.

Fiber Tests

In order to characterize the fibers of these three cottons as fully as possible, the Textile Research Institute made numerous tests in its own laboratory and also had tests made in other laboratories. The results will be summarized below.

Four independent classers examined the samples with results as shown in Table III. It is seen there that classers were almost in exact agreement with each other in regard to grade. None of the classers found any consistent difference between the overdried cottons and the control sample. The results on stapling also indicate a good consistency between the classers. Note especially that, with one exception, the classers did not feel that the overdried cotton was shorter than the cotton receiving no heat.

In the laboratory tests, the Fibrograph measurements showed a small, and not too consistent, reduction in upper half mean length. (Table IV.) The Fibrograph mean length, though, did show an appreciable reduction in average length when the cotton was overdried. There was, thus, a reduction in the length uniformity when cotton was overdried. The three laboratories testing Micronaire fineness and strength of the fiber could find no consistent difference among the cottons treated by the three different methods of drying. The average of all the strength tests made by different methods and in different laboratories shows a slight reduction in strength, but the consistency is so poor in some cases that it is unsafe to be too positive of any effects of drying on fiber strength.

A number of special tests were conducted on the fiber. (Table IV.) Three of these tests indicate structural differences which may be related to the overdrying treatments. In the alkali-centrifuge test, the overdried cottons took up more sodium hydroxide than did the GINWET sample, indicating that the former had sustained some damage to the fiber surface. It is interesting to note that the two overdried samples took up almost exactly the same amount of the chemical. The equilibrium moisture regains of the overdried samples were somewhat lower than those of the GINWET cotton. This difference indicates that drying with heat made the cotton a little more crystalline than it might otherwise have been. The Goldthwait differential dye test confirmed this structural difference. In it, the GINHOT cotton dyed a reddish color, whereas the GINWET sample came out a more greenish color. This test is normally one for cotton maturity; in this case, the cottons had the same maturity, but dyed differently as indicated.

Fibers were tested not only from the raw cotton samples, but also from the picker lap and roving samples. The results at these stages in processing were similar to those in the raw cotton.

An important point in the study is the corroboration of previous studies based on different methods that overdrying adversely affects fiber length. In the Textile Research Institute experiment, individual fiber length measurements were made on one thousand fibers taken from each of the GINWET, GINMILD, and GINHOT baled cottons. This was repeated by taking one thousand from each of these cottons after rovings had been made. The data in Table V show that as GINWET cotton passes through the mill processing, it retains quite well the same numbers of fibers in each length group as it had as raw cotton. But when the cottons have been dried,

Table III. Classer's Evaluation of Cottons Dried Under Three Conditions. Conventional Classer's Samples.

	Classer			
Grade	A	B	C	D
GINWET	M	M	M—(leaf)	M
GINMILD	M	M	M	M+
GINHOT	M	M	M	M
Staple				
GINWET	1-3/32	1-1/16	1-1/16	1-1/16
GINMILD	1-3/32	1-3/32	1-1/16	1-1/16
GINHOT	1-3/32	1-1/16	1-1/16	1-1/16
Character				
GINWET	—	—	Good	Fair-Good
GINMILD	—	—	Good	Fair-Good
GINHOT	—	—	Good	Fair

Table IV. Fiber Properties According to Laboratory Determinations. Capital Letters Under "Property" Refer to Laboratory.

Property	GINWET	GINMILD	GINHOT
Upper-half mean length of fibers in inches (A)	1.13	1.10	1.11
Upper-half mean length of fibers in inches (B)	1.11	1.11	1.10
Mean length of fibers in inches (A)	.96	.90	.92
Mean length of fibers in inches (B)	.95	.94	.90
Fiber length uniformity in % (A)	85	82	83
Fiber length uniformity in % (B)	86	85	82
Micronaire reading (A)	4.50	4.50	4.50
Micronaire reading (C)	4.70	4.55	4.60
Micronaire reading (D)	4.62	4.69	4.67
Percent maturity (D)	81.1	78.6	82.3
Strength in 1000 lbs. per sq. in., Pressley (A)	74	74	74
Strength in 1000 lbs. per sq. in., (B)	81.6	80.7	78.9
Strength in 1000 lbs. per sq. in., Instron (D)	78	74	76
Cotton colorimeter reflectance	76	75.3	75.8
Cotton colorimeter yellowness	8.7	8.6	8.7
Alkali-centrifuge valve (D)	188.1	194.0	194.7
Equilibrium moisture regain—Absorption (D)	7.43	7.26	7.19
—Desorption (D)	8.20	8.03	7.89
Goldthwait differential dye test (D)	Greenish	—	Reddish

Table V.
Number of fibers in each length group

Length groups	Baled Cotton			Roving		
	GINWET	GINMILD	GINHOT	GINWET	GINMILD	GINHOT
0.1-0.4 in.	286	280	344	275	323	353
0.5-0.8 in.	234	260	264	285	294	296
0.9-1.2 in.	429	408	356	413	366	347
1.3-1.5 in.	51	52	36	27	16	5
Total fibers	1,000	1,000	1,000	1,000	999	1,001

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regardless of the method, there were immediately important increases in the numbers of the shorter lengths of fiber, and a reduction in the numbers of fibers 0.9" and longer.

Perhaps the full significance of this finding is not yet known. It is known that some fibers are always broken during the ginning process causing a reduction in the average length of the cotton. This tendency to be reduced in length is apparently increased under severe drying conditions. The same increased tendency is still present when the overdried cotton is processed in the spinning mill, even after all the moisture has been restored to the cotton. The extra short fibers resulting from the excessive breakage of the overdried cotton fibers are apparently responsible for weaker yarns and lowered spinning efficiency.

It will be recalled that in this particular experiment there was absolutely no machining of the cotton except as it passed through the pipes, the drying towers, and the Mitchell units. It might be conjectured that in the usual ginning operation, additional machining, plus the effects of spinning operations, might have caused these overdried cottons to have been even more drastically reduced in length. Probably this finding about the reduction in length of fibers in overheated cotton should be more thoroughly examined, both as to the visual effects on the fiber and as to its relation to spinnability of the fiber.

In summary, all the usual fiber tests and conventional classing of cotton showed little or no difference between fibers that had been dried to 3.8 percent moisture as compared to about 6 percent moisture. Careful laboratory studies showed, however, (1) that the overdried cottons gave indications of structural differences from the control and (2) the overdried cottons had proportionately more short fibers than the undried cottons, both in the bale samples and in the roving samples. Both of these differences were detected by techniques not now used in the trade.

Summary

1. The usual trade laboratory methods and conventional classing did not distinguish between overdried (or overheated) cottons and the unheated control cotton in these experiments.

2. Regardless of the rate at which the cotton was reduced to a moisture content below that recommended, the effects on the cotton were about the same: yarn strength was decreased and the ends down in spinning were increased. These results confirm those reported in previous studies.

3. The cotton, as a result of overdrying under the conditions used in this test, suffered some changes in structure which gave rise to additional fiber breakage in ginning and yarn manufacture. It is believed that the resulting short fibers are the cause of the lowered quality of the cotton experienced by the spinning mill operator.

Big Cotton Crop Expected In Greece in 1954-55

A record cotton crop of about 160,000 bales is expected in Greece this year. This amount of cotton would represent a 15 percent increase over the 1953-54 crop, USDA says. The record production is attributed to expanded acreage. Picking started in mid-August.

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Oil Mill Equipment for Sale

FOR SALE—All kinds cotton gin and oil mill equipment, expellers, screw presses, screening tanks, filter presses, natural gas engines, one GMAC No. 465 automatic box nailing machine with motor and some spare parts.—Carter Foster, Jr., P. O. Box 522, Temple, Texas. Phone 3-4890, warehouse 502 North 14th Street, Temple, Texas.

FOR SALE—Anderson Super Duo expellers, each complete with 14" conditioner and 36" cooker; rolls, cookers, 176 and 141-saw Carver linters, all completely rebuilt. Fort Worth lint cleaner, filter presses, attrition mills, No. 199-60" seed cleaner, No. 153 separating unit, No. 136 double drum hull beater.—Sproles & Cook Machinery Co., 1212 South Industrial Blvd., Telephone PR-5958, Dallas, Texas.

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OIL MILL EQUIPMENT FOR SALE—Complete solvent plants, rebuilt twin motor Anderson high speed expellers, French screw presses, stack cookers, meal coolers, filter presses, oil screening tanks, complete modern prepressing or single press expeller mills.—Pittock and Associates, Glen Riddle, Pa.

Gin Equipment for Sale

FOR SALE—Cotton gins, oil mills and compresses. Some for operation where located, others for sale to move. If interested contact M. M. Phillips, Phone 5-8555, P. O. Box 1288, Corpus Christi, Texas.

FOR SALE—To be moved, 4-80 Murray gin outfit. Complete. Steel down-packing press; standard Mitchell cleaners; six-drum line cleaners; seed scales; Mitchell dryer; 100 h.p. electric motor with starter; all-steel, side-discharge condenser; dropper; steel seed bin and seed augers. Located 125 miles from Atlanta. Price, $15,000. — James C. Mann, telephone 4931, Conyers, Georgia.

FOR SALE—New Kemgas Statifiers and Moyst wetting agent, new government type tower driers and equipment, new flat or V-belts, lacing and dressing, V-sheaves, screw elevators, Phelps fans, conveyor and steel conveyor trough and equipment and numerous other items in new gin machinery and supplies. Also a large assortment of excellent all steel condensers, press pumps, steel bur machines, conveyor distributors, all steel presses, and numerous electric motors and power units for your gin plant. For your largest, oldest and most reliable source of guaranteed late model used and reconditioned gin machinery, contact us. Qualified graduate engineer to assist you with any of your machinery problems at no obligation. Call us regarding any machinery you have for sale or trade.—R. B. Strickland & Co., 13-A Hackberry St., Telephones: Day 2-8141, Night 3-7929, Waco, Texas.

FOR SALE—Most any make gin machinery, reconditioned and painted in factory colors. Also some items in new machinery. Tower driers, condensers, Mitchell machines, burr machines (10- and 14-foot), packers, pumps, new and used pipe, tin work, presses, fans, droppers, heaters, gin stands (all makes), conveyor distributors, cut-offs, over two thousand pulleys to choose from. We have the machinery and equipment and know how to make your gin modern. We deliver and install any equipment bought from us if requested. 28 years in cotton gin maintenance. You are invited to visit our warehouses and display on lot.—Spencer & Sons Cotton Gin Service, 5 Miles North on Highway 81, Georgetown, Texas.

Do you have a power unit to sell—or do you want to buy a used one? See the classified column headed "Power Units and Miscellaneous" on this page. It will bring you quick results.

FOR SALE: To be moved—4-70 Murray gin; 4-70 Mitchell extractor feeders; one Murray 5-cylinder airline cleaner; one Murray incline 6-cylinder cleaner with late model press and condenser, all electric power. Gin in good condition and has run every year.—Artesia Alfalfa Grower's Association, Artesia, N.M.

Equipment Wanted

WANTED—Several power units 100 to 200 h.p., gasoline, butane or natural gas. Give description and price.—Jack W. Miller, 37 Oldham Circle, Amarillo, Texas.

WANTED—Two Lummus cleaning separators, 6 feet wide. Any condition.—James F. Buske, Shiner, Texas.

AM BUYING now for 1955 season. Please advise, with price, on any good all-steel machinery you may have for sale. One piece or a whole gin. Paying best market prices for your used machinery.—Spencer & Sons Cotton Gin Service, 5 Miles North on Highway 81, Georgetown, Texas.

Personnel Ads

WANTED—Bookkeeper for oil mill in Central Texas. Mail particulars as to age, experience and references with application to P. O. Box 664, Austin, Texas.

POSITION WANTED — Graduate chemist: Five years experience in solvent-type oil mill control, feed, fertilizer, and insecticide analysis.—Box "KC", c/o Cotton Gin and Oil Mill Press, P. O. Box 444, Dallas, Texas.

Power Units and Miscellaneous

FOR THE LARGEST STOCK of good, clean used gas or diesel engines in Texas, always see Stewart & Stevenson Services first. Contact your nearest branch.

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FOR SALE—One 8-cylinder LeRoi engine.—W. C. High Gin, Hale Center, Texas.

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3	7½		Open Driproof	1800	278.00	115.00 ea.
9	2		Open Driproof	1800	160.00	66.00 ea.
4	1½		Open Driproof	1800	138.00	56.00 ea.
5	1		Open Driproof	1800	117.00	47.00 ea.
7	15		Open Driproof	1200	556.00	229.00 ea.

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Coconut Output Increases In Philippine Islands

Production of Philippine coconut products totaled 484,449 tons, copra equivalent, during the first six months of 1954. This is an increase of nearly one-third over the first half of 1953, USDA reports.

Serious typhoon damage in 1952 curtailed 1953's crop, and the higher production this year is the result of fairly good weather in 1953, the Department points out.

Exports of copra to the U.S. totaled 139,919 tons during January-June 1954 and exports of coconut oil to this country totaled 27,388 tons in the period.

Soybean Exports Decline

Soybean exports to Canada and Japan in July 1954 were 47 percent smaller than those in July 1953. This year exports for the month totaled 976,000 bushels, compared with 1.8 million bushels for the month a year ago, USDA reports.

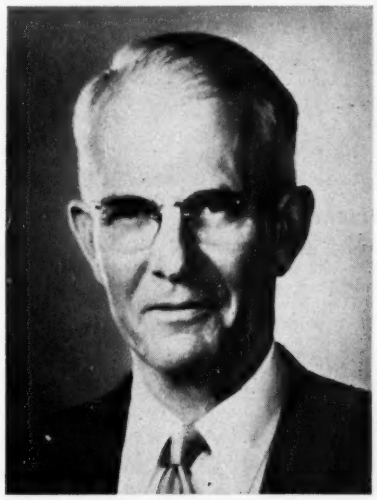
For the same period, the Department reports a decrease in shipments of refined soybean oil to Europe. This year they totaled only 620,000 pounds in July, compared with 6.7 million pounds in July 1953.

■ **JACK L. McMEANS has joined the staff of Delta Branch Experiment Station, Stoneville, Miss., as a cotton physiologist.**

Officers Re-elected, Two New Directors Named

A. L. Durand was re-elected president and all other officers re-elected Oct. 6 at a meeting of the board of directors of Chickasha Cotton Oil Co., Chickasha, Okla.

Kay Kimbell of Kimbell-Norris Mills and Kimbell Milling Co., Fort Worth; and Fred F. Florence, president of Republic National Bank, Dallas, were two new members who have been elected to



A. L. DURAND

the nine-member board of directors of the firm.

The Wall Street Journal recently stated that the election of two new directors gives a group headed by John W. Ferguson, insurance man of Houston and Fort Worth, three positions on the board.

"Ferguson and his associates," the publication continued, "in August sought tenders of 85,000 shares of the company's 255,000 shares outstanding at $19 a share. The tender offer expired with Ferguson and his associates receiving tenders of about 45,000 shares, giving them, along with previous holdings, about 32 percent of the company's stock."

Arkansas Brothers Crowned Champion Cotton Pickers

Brothers came out with top awards in the Blytheville, Ark., fifteenth annual National Cotton Picking Contest Oct. 5. Carroll McAfee, Monette, Ark., won the grand prize of $1,000, and his 12-year-old brother won the $50 first prize in the 13-and-under division.

William R. Beaton, Ginner, Dies at Caraway, Ark.

William Robert Beaton, 51, Caraway, Ark., ginner and merchant, died Oct. 4 at Caraway. Beaton operated Newsom & Beaton Gin in the Hancock community near Caraway as well as a mercantile store there. He was a member of the Methodist Church.

Survivors include his wife, a son, Chris, two daughters, Patsy and Sue, all of Caraway; one brother and five sisters.

Farm Exports in July Top Month's Total in 1953

U.S. agricultural exports in July 1954 were eight percent higher in value than in July 1953, USDA has reported.

U.S. farm exports last July totaled $213 million in value compared with $197 million in the corresponding month of the previous year. For the seven months, January through July 1954, they totaled about $1.7 billion compared with about $1.6 billion in the corresponding period of 1953, a gain of 6.6 percent.

Exports have risen month by month this year from $206 million in January to $267 million in June. The July total was at the lowest level for any month since January. However, farm exports frequently reach the lowest point of the year in July.

Smaller foreign supplies and higher prices abroad stimulated U.S. cotton exports, and this, as in previous months of this calendar year, helped to keep the level of all agricultural exports above a year earlier. U.S. shipments of 237,000 bales in July were nearly twice the quantity exported in July 1953. Exports of cottonseed oil, tallow and grain sorghums in July were far greater than a year previous. Tobacco sales abroad held steady as Western Europe maintained its purchases.

Wheat exports continued low because of restored European output and lower world prices. They amounted to 21 million bushels in July, or about five million bushels under the corresponding month of 1953. Soybean and soybean oil exports were substantially below a year earlier, and rice exports continued to run behind last year.

• Hubby Gone, She Has Poison Left Over

WASHINGTON gets many strange questions from the folks that keep the governmental city in business, and some of the most peculiar requests from the voters come to the Department of Agriculture.

One of these was from the farmer who wanted to know how to stop snoring. (USDA doesn't know how to stop it, he was written.)

Then, there was the child who wrote, from New York City of all places, for one small white female rabbit and one small white male rabbit, adding that he was "ambitious and wanted to start a business."

USDA was able to clear up the question as to whether it's dangerous to use the wood from a tree that was struck by lightning; but officials are still wondering just what happened to the husband of the woman who wrote this paragraph:

"Could you possibly send me a booklet explaining the use of different poisons for vegetables? I have lost my husband and have a lot of different poisons on hand."

Peanut Quotas Announced

The 1955-crop peanut allotments have been set by USDA at the minimum permitted by law. Acreage has been placed at 1,610,000 tons, and marketing quota at 740,600 tons. The acreage allotment is the same as it was for 1954, but the marketing quota has been increased by about 67,000 tons because of the use of a higher "normal yield" figure.

• Uncle Sam Wonders How Much He Has

UNCLE SAM is trying to find out how much land he owns, and how much of it he doesn't need. The federal government is the nation's largest landowner, but there hasn't been a complete inventory of federal lands in about 20 years. Experts guess that about one-fourth of the 1.9 billion acres in the continental U.S. is federal property, but won't know exactly until an inventory now being made is completed.

USDA made an estimate in 1950 that the government owned 455.6 million acres of rural land, but urban holdings were not included. More than 88 percent of the acreage was in 11 western states.

Progress of the Crop

(Continued from Page 35)

its peak in most counties of Northwest Texas and the Trans-Pecos.

With the crop harvested and the plow-up deadline passed, four Lower Rio Grande Valley counties had ginned over 412,000 bales, as compared with 267,000 last season. This was the Valley's best crop since 1951.

As over most of the Belt, this has generally been a light insect year for Texas. Pink bollworm counts in gin trash in many counties are running somewhat ahead of last season, but were appreciably heavier only in south central areas. Recent inspections show an alarming rise in pink bollworms in the Brazos River bottoms south of Bremond; and Navarro County gin trash counts showed 121 parasites.

Trade Barrier Removed

Sweden has placed cotton on the free import list, thus removing all exchange and other restrictions on cotton imports. USDA reports that this action may help to increase imports of U.S. cotton.

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• Soil Type Influences Irrigation Plans

IRRIGATION would be much easier to plan if we could see below the soil surface and note what is taking place there, says H. J. Maker, New Mexico Conservation Service. How fast does water move downward? How far does it go? What happens when it reaches a hard soil layer? How fast and how far does it move sideways from the furrow? How is it stored in the soil?

Of course it is not possible for the irrigator to see, or follow the movement of water through the soil. He will, however, have the answer to many of these questions, if he understands and knows the type of soil. Learning about the soil is the first step in taking care of it and in planning an irrigation system.

Soil survey information of one type or another is now available for a considerable part of the irrigated land, and farmers in soil conservation districts can obtain soil surveys of their farms.

Before planning an irrigation layout, what are some of the soil facts that we must know?

First of all, it is well to find out the depth of soil. If caliche, gypsum, gravel, or some other limiting layer is nearer the surface than 10 to 12 inches, it is probably best not to use this shallow soil for irrigation. In any case, it is wise to know the depth to the caliche or other material, as it will determine the depth of root and moisture penetration. In moderately deep soils, 20 to 36 inches, satisfactory results from irrigation can be expected. However, a deep soil, three feet or more, is most desirable, providing it has a good texture.

Cotton Marketing Problems Discussed

EDWIN J. O'NEAL, right, whose appointment as New Mexico Extension cotton marketing specialist was announced earlier in The Press, is shown discussing marketing with his predecessor, Marshall O. Thompson, now manager of Mesilla Park Co-op Gins, Mesilla Park, N.M.

Soil depth is the third dimension of any tract of land, and this factor perhaps more than any other one, determines how much water a soil will hold, Maker says.

Soil texture, another important soil factor, is undoubtedly more easily recognized and understood. Soils are, in general, made up of large particles called sand, medium sized particles called silt, and very fine particles called clay. The size and quantity of these particles within a given soil determine its texture.

Soil texture influences the rate at which water will enter and move through the soil. For example, silty soils which are quite common take water slowly. The irrigation system has to be planned with this in mind. The period of application usually needs to be prolonged in order to allow the water time enough to penetrate into the root zone. Production is frequently reduced on such soils because of inadequate penetration of irrigation water.

Like soil depth, texture also has an important bearing on the water-holding capacity of the soil. Sands and sandy loams, of course, hold less water than clays. Therefore, in planning irrigation systems on sandy soils, it must be kept in mind that they take water rapidly and have limited water-holding capacities.

Permeability is another characteristic that must be evaluated and considered in planning an irrigation layout. Permeability may be defined as the capacity of soil to transmit air and water. Soil texture influences rate of water movement or the permeability of the soil. There are other factors that affect this rate, such as structure of the soil, pores, and compactness as well as organic matter.

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H. W. Luck Will Handle Activities on Cotton

H. W. Luck, assistant agronomist with the Tennessee Extension Service, has been assigned responsibilities for the cotton phase of the Extension agronomy program. Luck has been serving in this capacity since last April but has spent most of his time administering the soil testing program. While he will continue to handle the cotton fertilization phase of soil testing, most of his time now will be devoted to cotton production activities.

His headquarters will be in Nashville. He is planning an expanded program with emphasis on efficiency of production and fitting cotton into an over-all farming program.

• Patched-up Job Has Melon-choly End

THIS IS a very melon-choly tale of a couple of city slickers who tried to modernize an age old stunt and then had to patch things up with the farmer.

A couple of soldiers in a helicopter were discovered in the watermelon patch of Mrs. Howard Kientz near Manhattan, Kans. The soldiers explained that they had paid an Indian boy $2 for four melons. Mrs. Kientz got the soldier's money from the boy and returned it to them. They returned the four melons to her. Then they returned the helicopter to the nearby airbase.

Fifty Percent Sucker

It's Really Not the Heat; It's the Humiliation

■ **BEAT-THE-HEAT test tube suits and men wearing them both took beating this summer, says this article from Down Drafts which was reprinted in the Louisville (Ky.) Times.**

"THAT'S A BEAT-UP looking bunch of men at that bus stop down there. The heat really must . . . ."

"Well, it's not so much the heat as it is the humiliation. Every one of those men down there bought one of these new-fangled suits that's supposed to beat the heat!"

"You mean those suits that sound like they've come out of a lab instead of a loom?"

"Yeah. That red-faced fellow there blowing up his sleeve has on a suit consisting of 40 percent koolon, 25 percent nylon, 30 percent aeron, and 5 percent cloth. I forget just what kind of cloth, but then that is the least important thing about a suit these days!"

"Pretty disillusioned, ain't he?"

"Yeah. He keeps waiting for the aeron and the koolon to start working."

"To what?"

"To start working. Seems that the salesman told him that when the weather hit 90, the koolon started working on the aeron, thereby starting a chemical reaction that caused the pores of the suit to open and close, thus creating a draft which made the suit the coolest thing in town!"

"No, draft, though, hunh?"

"He's not sure. Seems to him that something is drawing a whole lot of hot air up his britches leg. He figures that maybe the tailor got the wrong formula."

"Hmmm. Well, what about the fellow next to him? The one trying to bum a salt tablet?"

"He's pretty much in the same shape. His suit consists of 40 percent dacron, 30 percent nacron, 25 percent sacron, and 5 percent neutral spirits!"

"The formula ain't working there either, hunh?"

"Naw, the formula IS working. That's what's got him worried. You see, the salesman told him that when the weather got real hot those chemicals underwent a reaction called limposis. That meant that the pores went limp and that automatically let more air in. This man has just decided that what he wants is a suit that'll keep the air out."

"Well, what about that next fellow?"

"The one flapping his coat like a bird?"

"Yeah."

"Well, he's got all those chemicals in his suit, too, but he's got something extra. Those chemicals are put together in what's known as the Eskimo weave. Instead of the fabric being in millions of little squares, it's in millions of little circles. That's supposed to make a human wind tunnel out of him. Salesman told him the air would rush through that suit so fast he ought to carry an anchor with him to keep from being blown away!"

"And he's flapping his arms trying to start the suit to blowing?"

"Not exactly. Being a magic suit, it's got a crease in it that you can't beat out of the thing. It's serving as a gutter, the perspiration is rushing down it and his fingers are getting mildewed!"

"Well, what about that fellow standing off by himself?"

"Old Wrinkles? Well, he's hot, but he ain't humiliated!"

"Well, what's that thing he's got on?"

"Another magic suit. Fifty percent seer, 50 percent sucker!"

GOOD MECHANICAL HARVESTING
POOR MECHANICAL HARVESTING
This Bale Is Worth $
This Bale Is Worth $
BOTH BALES WERE GINNED HERE
GOOD HARVESTING PAYS OFF

Display Aids Proper Harvesting

SHOWN HERE is a better harvesting demonstration box that is being displayed this fall in gin offices in Missouri, Arkansas, Louisiana, Oklahoma, Arizona and Mississippi. Originated by the Missouri Extension Service to encourage improved operation of mechanical harvesters, it shows the dollars and cents value of good harvesting. It is an example of the many efforts that Extension specialists and county agents, cooperating with ginners, are making to emphasize better harvesting in 1954.

Feed Control Officials To Meet Oct. 13-14

Oct. 13-14 are dates of the forty-fourth annual convention of the Association of American Feed Control Officials to be held this year at the Shoreham Hotel, Washington.

Among the speakers scheduled for the two-day session is R. G. Houghtlin, president of the National Soybean Processors' Association, Chicago.

A. L. Ward, Dallas, director, NCPA Educational Service, will be among representatives of the cottonseed crushing industry at the meeting.

Texas A. & M. Given Irrigation Permit

The Texas A. & M. College System has been granted a permit to use up to 500 acre-feet of water annually from the Brazos River in irrigation research and instruction.

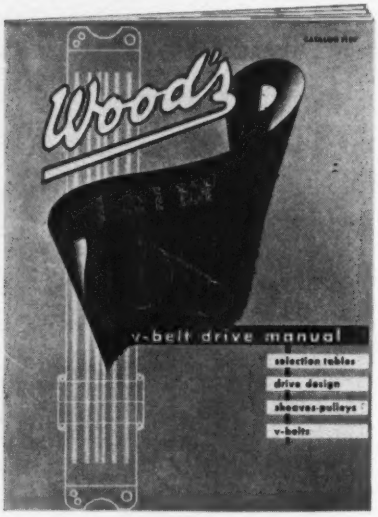
Studies in supplemental irrigation on common crops, including cotton, corn and pastures will be conducted, and some of the water will be used to protect valuable stocks of new plants being developed in the system's plant breeding program according to Texas Experiment Station Director R. D. Lewis.

New Book:

T. B. WOOD'S SONS CO. ISSUES V-BELT DRIVE MANUAL

Wood's new V-belt drive manual is one of the most comprehensive manuals of its type in the industry today, the company reports. For use by design, purchasing, production and maintenance departments, this manual contains:

Selection Tables—A complete listing of pre-engineered stock drive tables.



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Drive Design—All of the data required to design a V-drive with new improved horsepower ratings.

Sheaves-Pulleys—Stock sheaves and pulleys with the "Sure-Grip" interchangebale tapered bushing. Also instructions covering how to order any sheave or pulley with special dimensions.

V-Belts—V-belts of all designs including standard, super, steel, notched steel, open-end, detachable-link, and double-V construction.

Copies may be obtained from T. B. Wood's Sons Co., 1117 West Commerce Street, Dallas, or The Cotton Gin and Oil Mill Press, P. O. Box 444, Dallas 21.

Turkey Reports 10 Percent Drop in Cotton Acreage

Turkey's 1954-55 cotton crop is expected to remain at about the 620,000-bale level it attained last year, USDA says. Acreage is down about 10 percent from last year and 20 percent down from the peak reached in 1952.

General decline in cotton prices, relatively strong producer prices for grains and tobacco, and unfavorable cotton planting weather are reasons for the drop in acreage.

El Salvador Acreage Jumps

A 35 percent increase in cotton acreage in El Salvador this year may result in a record harvest of 60,000 bales, USDA reports. Reason for the big increase in the cotton crop was the profit chalked up by growers last year.

From our Washington Bureau

(Continued from Page 18)

pens to be in the form of a cottonseed product, it is only proper to recall that you can make margarine at least as well with cottonseed oil as with soybean oil . . .

"The year after we thought we had won the margarine fight, 1.4 billion pounds of our cottonseed oil had gone to CCC—while soybean oil looked after our margarine market for us . . ."

The quotations were excerpted from a talk by Blake before the American Soybean Association which was published in full in The Press.

• **Wool Supports Due To Rise**—Agriculture Secretary Benson is expected to announce a wool program for next year calculated to bring producers a price at or near 110 percent of parity. Support at this relatively high level is anticipated following the recent meeting in Washington between top USDA officials and representatives of wool growers.

The Agriculture Secretary, by direction of Congress in provisions of the new farm law, is required to consult with producers in establishing support levels for wool. The law permits support up to 90 percent of parity through loans and purchases, and on up to 110 percent of parity through direct payments to producers. Purpose is to increase annual production to 300 million pounds. Output this year is estimated at some 75 million pounds less than that figure.

• **Democrat Victory Seen**—Most political prognosticators here are now predicting not only a Democratic House, but also a switch in control of the Senate in the next Congress. Soundings they have been taking around the country, say political reporters in Washington, indicate that the GOP is having a tough time transferring the Eisenhower popularity to individual Republican candidates.

The outcome in many close states is expected to turn on the farm vote. In the Midwest, where farmers usually have voted Republican, there are reportedly signs of revolt against the GOP, as in 1948 when Truman won his surprise victory.

Georgia Crushers Announce Cotton Contest Winners

Frank A. Graham, Dawson, president of the Georgia Cottonseed Crushers' Association, will present prize checks to four Future Farmers of America Oct. 23 at the state FFA Round-Up at Macon.

J. E. Moses, Atlanta, secretary of the Association, has announced that winners of the crushers' awards in the One-Acre Cotton Contest are William McDowell, Oliver; Hoyt Pope, Hartsfield; Raymond Ralston, Calhoun; and Laverne Swords, Elberton.

Virginia Johansen Named New Associate Editor

Mrs. Virginia Johansen, former experiment station editor at New Mexico A. & M. College, has been appointed associate agricultural editor in the department of information in New Mexico A. & M.'s school of agriculture and home economics, according to Dean and Director R. A. Nichols.

She edited all research publications at New Mexico A. & M. from 1946 to 1953. In her new position, she will edit both extension circulars and experiment station bulletins.

Committee Meets in New Mexico

THREE MEMBERS of the National Cotton and Cottonseed Advisory Committee of USDA discuss southwestern cotton problems with John T. Stovall, left, administrative officer for the 1517 Cotton Association, and Dr. R. A. Nichols, second from left, dean and director of agriculture at New Mexico A. & M. College, during the annual fall meeting of the committee at State College, N.M., Sept. 27-28-29. Committee members shown are Aubrey L. Lockett, center, Vernon, Texas, ginning, cotton, and business leader; John H. Todd, second from right, Memphis, vice-president of the National Cotton Compress and Warehouse Association; and A. L. Durand, Hobart, Okla., crusher and president of the National Cotton Council. The committee discussed research activities.

Revenue From Research

(Continued from Page 8)

improved mill operations and machinery manufacturers who have made better equipment are real research workers who have contributed much to the industry's progress. So are the trained, full time scientists at USDA's Southern Regional Research Laboratory in New Orleans, Texas' Cottonseed Products Laboratory and other institutions working on problems associated with seed processing.

Processing and utilization research usually are closely related, as they were in the development of processing techniques for the special cottonseed meals which feeding research proved could be used for poultry. This was a splendid example of teamwork among federal processing researchers; state and federal nutrition workers; representatives of private firms engaged in crushing, machinery manufacturing, feed manufacturing and other lines; and the NCPA staff, serving as the coordinating organization.

Another fine example of cooperation is that involved in the Cottonseed Processing Research Clinic sponsored by the Valley Oilseed Processors' Association and Southern Laboratory. Here mill managers, superintendents, machinery firm representatives, chemists, users of linters and other cottonseed products, USDA workers and others freely discuss the improvement of processing and cottonseed products.

Through their national organization, cottonseed crushers for many years have had various types of fellowships with USDA, most of them associated with processing. These activities have been centered at the Southern Laboratory in New Orleans since it was established. The report of the 1953 NCPA fellow, Edith A. Jensen, was published by The Press on May 22, 1954.

State crushing associations and many individual firms deserve recognition for varied research activities, much of this through aid provided to state and federal research workers. Too numerous to list here, these programs range all of the way from furnishing a few pounds of seed or products for the use of a scientist up to providing funds to aid research.

All of this seems to point up the fact that cottonseed crushers are aware of the danger of being "researched out" of markets. They seem to recognize that research is essential to keep their industry abreast of modern processing trends.

Even more important, the sesame program and the cottonseed meal work mentioned previously show that the industry can be "researched into" new sources of income.

Proof of this is found in the following sketch (not intended to be complete) of the vast amount of work that led to this year's sales of cottonseed meal for poultry and hogs.

Getting a Foot in the Chicken House Door

Cottonseed crushers have long suffered because the doors of poultry houses have been shut to their cottonseed meal. As good as cottonseed meal has been for beef and dairy cattle, sheep and work stock, very little of it has been used for poultry and swine.

As is well known, this has been because chickens and hogs are very susceptible to growth-inhibiting substances

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(NOTE: Generally, cottonseed oil mill listings in the United States show officers, addresses, equipment and rail location. Many of the other vegetable oil mill listings in the United States, Canada and Latin America also give this information.)

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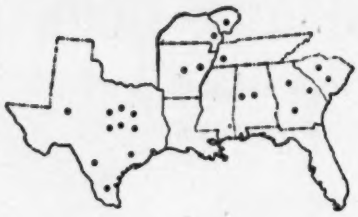

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which have been found in cottonseed meal and because of variations in protein quality. Cottonseed contains a substance called gossypol. Processing methods that have long been used for cottonseed reduce the "free gossypol" content of cottonseed meal but may leave amounts which strictly limit its use in poultry and swine rations.

• **A Sudden Change**—Early in 1954, feed mixers began buying cottonseed meal to use in mixtures for chicks, broilers and swine. Why the sudden change, after all of these years?

A big gap had developed between prices of soybean meal and cottonseed meal. This made feed manufacturers very anxious to use cottonseed meal in their formulas. But no amount of spread in prices would cause a reputable firm to use a feed that would hurt its customers' poultry.

The real reason for the change was that research had proved that **certain cottonseed meals**—not all of them—could be used liberally in the rations of baby chicks, broilers and hogs.

These **special meals** met the requirements which research workers had set forth after years of work on processing and feeding—work at oil mills, in laboratories and in the poultry houses.

Research workers and representatives from the cottonseed crushing and feed industries met last November at a nutrition conference held at the Southern Laboratory and sponsored by USDA and NCPA. After two days of discussions, they adopted the following statement, a milestone in cottonseed meal research history:

"Results presented thus far indicate that chick and broiler rations containing cottonseed meal and soybean meal in equal proportions on a nitrogen basis are equal or superior to rations based on either cottonseed meal or soybean meal alone, when the cottonseed meal used has 0.04 percent or less free gossypol and 75 percent or more of nitrogen solubility in 0.02 N NaOH solution.

"Nutrition investigators, representing industrial, federal and state organizations, are invited to conduct experiments based on this statement, using cottonseed meal of known processing history and chemical characteristics and soybean meal of high quality.

"Preliminary indications are, in so far as free gossypol is concerned, that cottonseed meals having 0.04 percent or less of free gossypol can be fed in unrestricted proportions in balanced diets for chicks, broilers and swine."

That statement, from recognized research authorities who had been working on the problem for years, was the springboard from which cottonseed meal moved into formula feeds for chicks, broilers and hogs.

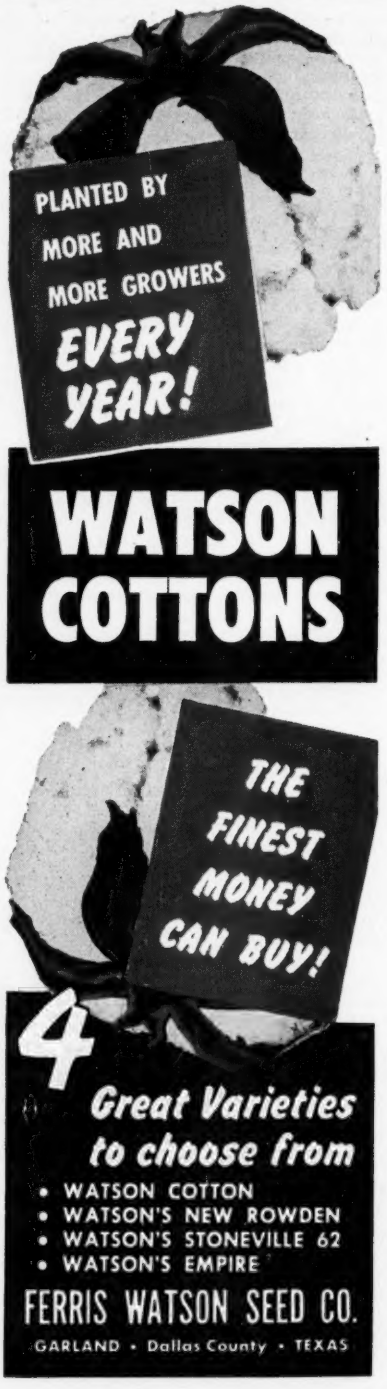
The following points, however, should be considered in evaluating the situation:

1. Only a part of the cottonseed crushing industry now produces meal that is qualified to meet the requirements outlined by the nutrition conference. About 2,500 tons could be produced daily, it is estimated, if all mills with the necessary equipment were making this special meal.

2. All mills, however, obviously benefit from the sales of this meal. When the qualified meal moves into the "new" market in which other cottonseed meals are not sold, that much pressure is taken off the supply and market situation elsewhere.

3. An unusual price situation helped to sell the qualified meals rapidly last spring. But it took a lot of sales effort then, and will take lots of work in the future. It isn't easy for a new product to break into any market; and this special cottonseed meal has to overcome the handicap of the fact that users for years have thought that cottonseed meal couldn't be used for poultry or swine, except in very small amounts.

Here's an example of how research, publicity and educational work can combine to sell meal. J. R. Couch, Texas Experiment Station authority, wrote a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special article, Cottonseed Meal for Poultry, last May 8 for The Cotton Gin and Oil Mill Press. Reprints of the article were distributed widely by the Educational Service. They went to oil mills, many of which distributed additional copies; and to county agents, vocational teachers and others who influence feeding practices. Feed manufacturers got extra copies to give to their salesmen. Texas Feed Manufacturers' Association sent it to all members.

Must Open Door Wider

Cottonseed crushers have only one foot in the door to the large market for protein represented by poultry. Cottonseed meal cannot yet be used in rations for laying hens without fear of causing discoloration of egg yolks in storage.

Crushers of cottonseed should not, in the opinion of A. M. Altschul, a brilliant research leader at USDA's Southern Laboratory, be satisfied until cottonseed meal can be used as the sole source of protein in rations for any livestock or poultry.

Full equality with other proteins—which means full competitive equality in the market place—is the goal of research and industry leaders who are working together on this problem. They are determined to continue to work toward the objective of having all cottonseed meal produced, by any method of processing, fully as useful as any other vegetable protein concentrate.

Quality of the oil produced, economy of operation and the many other factors that enter into the whole processing and marketing picture are being given full and careful consideration, also.

• **Many Able Helpers**—The cottonseed industry has had the assistance of outstanding authorities on processing and nutrition in improving cottonseed meal. These same leaders are continuing their efforts to improve the processing and product far more in the future.

Any list of workers is bound to omit some who have made valuable contributions, because so many different people in different areas and lines of work are helping. Any such list must certainly include:

C. H. Fisher, chief, and many members of the staff of USDA's New Orleans laboratory, including Altschul, who has been mentioned.

Carl M. Lyman, Fred Hale, Russell Couch and others at Texas A. & M.

A. B. Watts and associates at Louisiana State University.

C. R. Grau and others of the University of California.

T. J. Cunha, H. D. Wallace and coworkers in Florida.

E. L. Stephenson and others at the University of Arkansas.

C. L. Morgan and associates of Clemson College, South Carolina.

B. W. Heywang of USDA's Southwest Poultry Experiment Station and many other USDA scientists.

K. T. Holley and associates at Georgia Experiment Station.

Many individual members of the crushing industry, oil mill managers, superintendents, chemists and others, have worked closely with these and other research leaders. A. L. Ward, director, Garlon A. Harper, assistant director, and the Educational field staff have been advisory and coordinating agents without whom the progress could not have been made.

Grants-in-aid and other financial cooperation provided by NCPA have been largely in support of feeding tests necessary to the program. In every case NCPA funds have represented only a small part of the total amount expended on the research at the station.

They Gambled and Won

"All research is a costly gamble," Gustaff Egloff, research director, Universal Oil Products Co., told the American Chemical Society recently. Only one research project in 20 is brought to a financially successful conclusion, he said.

The over-all profit from research,

J. A. Rogers Retires In Mississippi

J. A. Rogers, Jackson, Miss., has retired after serving many years as secretary of the Mississippi Cottonseed Crushers' Association. His friends throughout the oilseed processing and allied industries will join the staff of The Cotton Gin and Oil Mill Press in extending best wishes to him.

No fulltime secretary has yet been elected to replace him, but George C. Perry of Jackson has been named acting secretary, according to H. E. Covington, also of Jackson, president of the Association.

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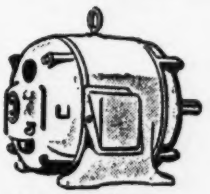

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this authority added, results from an occasional project producing results of such value as to more than offset the cost of a number of failures.

The cottonseed industry has already won. Call research a gamble or an investment, the payoff of the past year has justified the venture that oil mills of the Cotton States authorized their national organization to carry on for them.

And the prospects are even better for future returns. There will be false starts and failures, as there always must be in research. However, there is every reason to have confidence that sustained, adequate research in the future can bring the industry the benefits of better supplies of raw material, improved processing and better, more widely useful products.

All of which reminds us of a conversation that we had with a Mississippi Delta mill manager about 15 years ago. He was talking about changes in the industry since he entered it, and his comments went something like this:

• **Hurt His Fishing**—"When I came into the Delta, mills were burning hulls for fuel because they couldn't sell them and they were cheaper to burn than other fuel.

"This mill right here didn't even have a cash book for meal sales. We didn't sell any meal to farmers at the mill door. Just loaded it in boxcars and shipped it out. Closed the mill and went fishing when we finished crushing.

"Then Ward and his boys (A. L. Ward and the Educational Service staff) came along and started showing these farmers how to feed meal and hulls. And it's never been the same since."

The old timer paused a minute, then added:

"It helped my business a lot, but it sure did cut down on my fishing."

It's our bet that things will "never be the same since" the mixed feed industry in 1954 began to use special cottonseed meal in poultry and swine feeds. A milestone has been passed in the history of cottonseed processing and meal feeding, although there's a long road ahead to the ultimate goals.

Crushers may have to cut down on their fishing, but it sure ought to help their business if they will follow the way that research is leading them.

Irrigation Short Course Held at Tifton, Ga.

A short course on farm ponds and irrigation was held at Abraham Baldwin Agricultural College, Tifton, Ga., on Sept. 30.

T. M. Cordell, dean of the college, said the short course was of special concern because of the extreme drouth this year. "If plans are properly made to irrigate next year, farmers must start now. The first prerequisite is a supply of water and the best time to make this preparation is during the fall," Cordell said.

Outstanding geologists, agricultural engineers, bankers and an official of the Farmers Home Administration participated in the discussions.

The water supply in Georgia, constructing a farm pond for irrigation, and designing a system of irrigation were topics discussed at the morning session. S. M. Herrick, district geologist, Geological Survey, Atlanta; R. W. Geological Survey, Atlanta; R. W. Brown, agricultural engineer, Soil Conservation Service, Tifton, and Rufus Tallon, manager, irrigation division, Noland and Co., Marietta, took part.

After lunch W. P. Law, associate agricultural engineer, Clemson College, Clemson, S.C., discussed crops for which irrigation is profitable. How irrigation systems may be financed was explained by James W. Blanchard, executive vice-president, Citizens and Southern National Bank, Valdesta, and by Davis Slappy, chief, Production Loan Operations, Farmers Home Administration, Atlanta.

A panel discussion on what Georgia can and should do about irrigation was led by J. W. Fanning, associate director of continuing education at the University of Georgia.

Poultry Specialist Joining Georgia Extension Staff

Jack Palmer has been named assistant poultryman for the Georgia Extension Service, according to W. A. Sutton, associate director.

Palmer, who received his degree of doctor of veterinary medicine from the University of Georgia, will assist H. W. Bennett and Arthur Gannon. He will serve as specialist in poultry health.

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• Field Days Held In Oklahoma

THE THIRD annual field day at the Oklahoma Sandy Land Research Station, Mangum, is scheduled for Oct. 14, says Tom Cunningham, station superintendent.

Cotton and sorghum variety tests, summer legumes on sandy soils and a fertilizer placement test will be shown during a morning tour.

In the afternoon demonstrations comparing unplowed and deep plowed sandy land, winter cover crops and fertilization, organic matter for sandy soils, wide row spacing of cotton and summer legume rotation, alfalfa fertilization and first-year cotton on deep plowed land will be shown.

Guides for the tours will include Ed Oswalt, Oklahoma Cotton Research Station superintendent, Chickasha; J. B. McBride, soil conservation work unit leader, Mangum; Roy Ward, superintendent of the north farm, Irrigation Research Station, Blair; Jim Tomlinson, Oklahoma A. & M. Experiment Station; Bill Sallee, Greer County agent, Mangum; Pete Bell, Farmers Home Administration, Mangum; Ben Sorells, veterans' agricultural instructor, Mangum; and Esco Robinson, Altus.

• **Irrigation Tour**—On Oct. 8 the Oklahoma Irrigation Research Station, Altus, scheduled two tours, including a comparison of sprinkling versus surface irrigation on 36 varieties of cotton. Also shown were cotton varieties for stripper harvesting, watering trials on cotton and grain sorghums, fertilizer placement for cotton and chiseling of cotton ground. Sweet potatoes grown under irrigated conditions were the subject of the afternoon tour.

Cotton Ginned to Sept. 16

Number of bales of cotton ginned from the crop of 1954 prior to Sept. 16, 1954, and comparative statistics to the corresponding date in 1953 and 1952.

State	Ginning (Running bales—linters not included)		
	*1954	1953	1952
United States	**3,375,866	**2,942,312	**3,405,754
Alabama	347,126	344,051	311,947
Arizona	53,969	51,676	37,978
Arkansas	217,383	156,070	236,372
California	13,437	15,532	21,356
Florida	14,568	10,196	12,952
Georgia	362,889	320,694	322,708
Louisiana	219,619	136,957	295,191
Mississippi	387,484	430,824	647,684
Missouri	60,497	75,191	50,432
New Mexico	5,201	869	3,395
North Carolina	60,090	89,020	41,222
Oklahoma	16,934	10,572	15,177
South Carolina	237,836	265,156	181,543
Tennessee	72,234	82,590	64,100
Texas	1,305,381	951,752	1,163,004
All other States	1,218	1,162	693

*The 1954 figures include estimates made for cotton gins for which reports were not obtained in time for use in the preparation of this report. Figures on cotton ginnings prior to Sept. 16 were collected by mail and reports were not received for all gins at which cotton had been ginned.

**Includes 388,229 bales of the crop of 1954 ginned prior to Aug. 1 which were counted in the supply for the season of 1953-54, compared with 345,860 and 176,356 bales of the crops of 1953 and 1952.

This report includes 113 bales of American-Egyptian for 1954, 850 for 1953, and 329 for 1952.

This report is subject to revision when checked against the individual returns of the ginners being transmitted by mail. The revised total of cotton ginned this season prior to Sept. 1 is 1,697,925 bales.

Consumption, Stocks, Imports, and Exports—U.S.

Cotton consumed during August 1954 amounted to 667,443 bales. Cotton on hand in consuming establishments on Aug. 28 was 1,025,075 bales and in public storage and at compresses 8,340,420 bales.

Texas Feed Sales Drop In Last Fiscal Year

Livestock feed totaling 3,237,831 tons was sold in Texas during the state's fiscal year ending Aug. 31, according to F. D. Brock, chief of the Feed Control Service.

This was 879,513 tons, or 21.3 percent, under last year's 4,117,344 tons and 1,167,845 tons below the all-time high established in 1951-52.

Brock says the reduction in volume was caused mainly by an increase in custom feed mixing and by drouth, which has prompted a reduction in the number of livestock on farms.

These sales figures do not include the volume fed to livestock and poultry farmers who process and use the feed they grow. Such farmers are exempt from the provisions of the Texas feed laws.

Fewer Chinese Soybeans Go Through Suez Canal

Volume of Chinese soybeans moving northward through the Suez Canal decreased six percent in the first half of 1954 as compared with volume moving in the first half of 1953.

Total this year was 9,670,000 bushels. This is probably the bulk of 1954 shipments, USDA reports, since January-June movements for the past three years have comprised 68, 90 and 88 percent of the total year's shipments, respectively.

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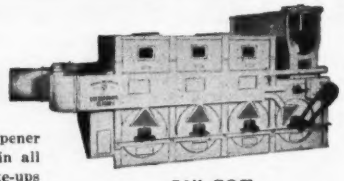

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CALENDAR

Conventions - Meetings - Events

1	2	3	4
12	13	14	15	16	17	18

• Oct. 11-12-13—Cotton Spinner-Breeder Conference. Greenville and Stoneville, Miss. For information write Delta Council, Stoneville.

• Oct. 11-12-13—American Oil Chemists' Society fall meeting. Hotel Radisson, Minneapolis. For information write American Oil Chemists' Society, 35 East Wacker Drive, Chicago.

• Dec. 2-3—Beltwide Insect Control Conference. Hotel Adolphus, Dallas. For information write National Cotton Council, P. O. Box 18, Memphis 1.

1955

• Jan. 31-Feb. 1—National Cotton Council of America annual meeting. Hotel Shamrock, Houston. Wm. Rhea Blake, P. O. Box 18, Memphis, executive vice-president.

• Feb. 7-8—Cottonseed Processing Research Clinic. Southern Regional Research Laboratory, New Orleans. Sponsored by the Valley Oilseed Processors' Association and the Laboratory. C. E. Garner, 1024 Exchange Building, Memphis 3, Association secretary.

• Feb. 7-8—Texas Cooperative Ginners' Association joint convention with Texas Federation of Cooperatives and Houston Bank for Cooperatives. Plaza Hotel, San Antonio. B. E. Schroeder, 307 Nash Building, Austin, executive secretary.

• Feb. 15-16 — Alabama-Florida Cotton Ginners' Association annual convention. Atlanta, Ga. Tom Murray, Room 410, Henry Grady Building, Atlanta, executive officer. To be held concurrently with Southeast Gin Suppliers' Exhibit.

• Feb. 15-16—Southeast Gin Suppliers' Exhibit. Biltmore Hotel, Atlanta. Sponsored by the Alabama-Florida, Carolinas and Georgia ginners' associations. For information write Tom Murray, Room 410, Henry Grady Building.

• Feb. 15-16 — Carolinas Ginners' Association annual convention. Atlanta, Ga. Clifford H. Hardy, 400 Broad Street, Bennettsville, S.C., executive secretary-treasurer. To be held concurrently with Southeast Gin Suppliers' Exhibit.

• Feb. 15-16—Georgia Cotton Ginners' Association annual convention. Biltmore Hotel, Atlanta. Tom Murray, Room 410, Henry Grady Building, Atlanta, executive vice-president. To be held concurrently with Southeast Gin Suppliers' Exhibit.

• Feb. 23-24—Oklahoma Cotton Ginners' Association annual meeting. Skirvin Tower Hotel, Oklahoma City. J. D. Fleming, 1004 Cravens Building, Oklahoma City 2, secretary-treasurer.

• March 14-15 — Midsouth Gin Supply Exhibit. Midsouth Fairgrounds, Memphis. For information write W. Kemper Bruton, executive vice-president, Arkansas-Missouri Cotton Ginners' Association, P. O. Box 345, Blytheville, Ark. Arkansas-Missouri and Tennessee ginners' associations will hold annual conventions in connection with the exhibit.

• March 14-15—Arkansas-Missouri Cotton Ginners' Association annual conven-

tion. Memphis. W. Kemper Bruton, P. O. Box 345, Blytheville, Ark., executive vice-president. To be held concurrently with Midsouth Gin Supply Exhibit.

• March 14-15—Tennessee Cotton Ginners' Association annual convention. Memphis. W. T. Pigott, P. O. Box 226, Milan, secretary-treasurer. To be held concurrently with Midsouth Gin Supply Exhibit.

• March 18-19-20—West Coast Division, International Oil Mill Superintendents' Association, annual convention. Ambassador Hotel, Los Angeles. H. F. Crossno, 9065 Gainsford Street, Downey, Calif., convention chairman; H. E. Wilson, Wharton, Texas, secretary-treasurer.

• March 28-29—Valley Oilseed Processors' Association annual convention. Hotel Buena Vista, Biloxi, Miss. C. E. Garner, 1024 Exchange Building, Memphis, secretary.

• April 4-5-6 — Texas Cotton Ginners' Association annual convention. State Fair Grounds, Dallas. Jay C. Stilley, 3724 Race Street, Dallas, executive vice-president. For exhibit space, write R. Haughton, president, Gin Machinery & Supply Association, Inc., 3116 Commerce Street (P. O. Box 444), Dallas.

• May 3-4—National Cotton Compress and Cotton Warehouse Association annual convention. Boca Raton Club, Boca Raton, Fla. John H. Todd, 1085 Shrine Building, Memphis, executive vice-president.

• May 17-18 — Oklahoma Cottonseed Crushers' Association annual meeting. Lake Murray Lodge, Lake Murray. J. D. Fleming, 1004 Cravens Building, Oklahoma City 2, secretary-treasurer.

• May 20-24—National Cottonseed Products Association annual convention. Jung Hotel, New Orleans. S. M. Harmon, 19 South Cleveland Street, Memphis, secretary-treasurer.

• June 5-6-7—Texas Cottonseed Crushers' Association annual convention. St. Anthony Hotel, San Antonio. Jack Whetstone, 624 Wilson Building, Dallas, secretary.

• June 7-8-9—Tri-States Oil Mill Superintendents' Association annual convention. Edgewater Beach Hotel, Biloxi, Miss. Roy Castillow, Southern Cotton Oil Co., Little Rock, Ark., secretary-treasurer.

• June 13-16 — International Oil Mill Superintendents' Association annual convention. Lubbock Hotel, Lubbock. H. E. Wilson, P. O. Box 1180, Wharton, Texas, secretary-treasurer.

• June 20-21—Alabama-Florida Cottonseed Products Association and Georgia Cottonseed Crushers' Association annual joint convention. Edgewater Gulf Hotel, Edgewater Park, Miss. T. R. Cain, 322 Professional Center Building, Montgomery, executive secretary, Alabama-Florida association. J. E. Moses, 318 Grand Theatre Building, Atlanta 3, secretary, Georgia association.

• June 23-24 — Mississippi Cottonseed Crushers' Association forty-fifth annual convention. Hotel Buena Vista, Biloxi. For information write 207 One Hundred East Pearl Building, Jackson.

• Sept. 7-8-9—Beltwide Cotton Mechanization Conference. Texas A. & M. College, College Station, Texas, and Blackland Experiment Station, Temple, Texas. For information write National Cotton Council, P. O. Box 18, Memphis 1.

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laugh it off

He was a very absent-minded lawyer. When he began to plead the cause of his client the defendant, he said: "I know the prisoner at the bar. He bears the reputation of being the most consummate, impudent scoundrel in the country . . . "

There was a flurry in the courtroom, and the lawyer's partner hurried over and whispered, "Sh-h-h, Tom. It's your client you're speaking of."

Immediately the attorney continued . . . "but what great and good man ever lived who was not slandered and calumniated by many of his contemporaries?"

• • •

The girl without principle often draws the most interest.

• • •

Young Man: You're one in a million, girlie.

Sweet Young Thing: So are your chances.

• • •

Her gossamer hose, she notes with sorrow,
Are sheer today—and gone tomorrow.

• • •

'Twas in a restaurant they met—
Romeo and Juliet;
He had no cash to pay the debt,
So Rome'od while Juli'et.

• • •

Draftee's Father (at army camp): And where is my son, Private Smith?

Sergeant: A.W.O.L.

Draftee's Father: What do you mean by that?

Sergeant: After women or liquor.

• • •

A long winded after dinner speaker droned on and on. The crowd became restless. The chairman picked up his gavel and rapped for order. A short, bald headed man who sat directly under the chairman was hit on the top of the head with the gavel.

The little short man slumped down in his seat, lowered his eyes, and moaned, "Hit me again, I can still hear him."

• • •

A draftee, stationed somewhere in the South, sent the following letter to his young wife: "If you can possibly make it come down this week-end. Also, I'm broke, so please bring me ten dollars. If you can't come, send me twelve dollars."

• • •

Film Director (explaining): In this scene, Miss Trimm, the young man rushes into the room, grabs you, binds you with rope from head to foot, and then smothers you with kisses.

Miss Trimm: Is the young man tall, fair and handsome?

Film Director: Yes, why?

Miss Trimm: Then he won't need any rope.

• • •

"Was her father surprised when you said that you wanted to marry his daughter?"

"Was he surprised? Why the gun fell right out of his hands."

• • •

In ancient days the ladies in waiting to the king would curl up with a book. Some of them curled up with a page.

• • •

He: I suppose you dance.
She: Oh yes, I love to.
He: Great! That's better'n dancing.

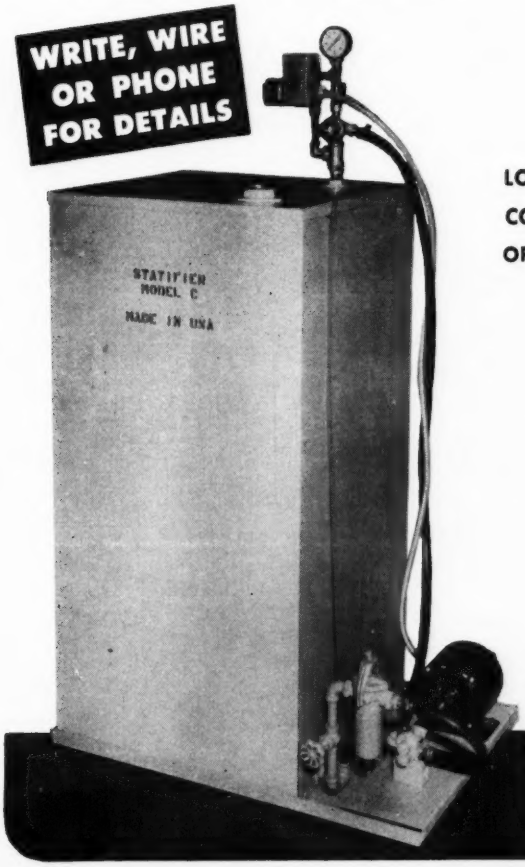
How Kemgas Statifier Cuts Costs And Boosts Gin Production

Experienced ginners everywhere know the advantages of moisture in baling cotton. It makes pressing simpler. It enables the press crew to keep up with the production of the largest gins. Losses from broken ties are practically eliminated and press repairs are at a minimum. Adding controlled moisture is no longer a problem. The Kemgas Statifier sprays an automatically controlled mist of "wet water" . . . 8 pounds or less to the 500-pound bale. The instant the batt of cotton comes from the condenser it tilts a metal control flap mounted across the lint slide closing a mercury switch that starts and controls the gentle mist spray over the batt.

Uniform Penetration with MOYST Agent

As long as the condenser delivers cotton to the slide, the Statifier responds with its controlled mist. Breaks or gaps in the batt releases the control flap which automatically stops the mist. Very little water is needed for a 500-pound bale because a special MOYST wetting agent is used in the Statifier. This permits the slight moisture used to uniformly penetrate all of the cotton in the bale. Only one pint of this wetting agent is used in 50 gallons of water, costing between 1 and 2 cents per bale.

WRITE, WIRE OR PHONE FOR DETAILS



LOW VOLTAGE CONTROL FAITHFULLY OPERATES NEW STATIFIER SERIES

The mist control systems of the new STATIFIER series are now operated by a 24-volt unit. It is a simple and quick installation and complies with National Electrical Code requirements. The 100-gallon tank in which the MOYST wetting agent is added to the water, is of 18 gauge galvanized steel. The ¼-horsepower motor is totally enclosed. The pressure pump is of bronze and stainless steel, and there is now a quick opening cover on the large-capacity strainer to simplify cleaning the screen.

MODEL CL For use only at lint slide before cotton is pressed. Has automatic electric control for mist unit.

MODEL CLL For use at lint slides of double battery gin. Has one motor, pump and tank, but two mist units and controls.

MODEL CD For use only at point where seed cotton drops into conveyor distributor before it is ginned. Has automatic electric control for mist unit.

MODEL CLD For use at both lint slide and distributor. Mist units have separate automatic controls.

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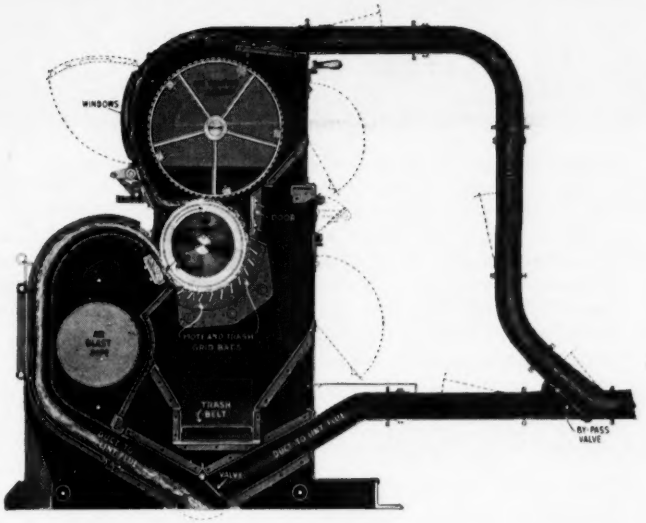

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